

ADAPTATION

Leveraging Modern Narratives Towards Preservation and Public Uses of Pueblo Bonito's World Heritage Ruins In New Mexico's Central Chaco Canyon

A LANDSCAPE ARCHITECTURE THESIS BY JOSEPH REED

THESIS ARCHIVAL NOTE

The following thesis project, entitled **ADAPTATION: Leveraging Modern Narratives Towards Preservation and Public Uses of Pueblo Bonito's World Heritage Ruins In New Mexico's Central Chaco Canyon**, was composed over the course of the 2018-2019 academic school year. The Thesis Program, as contained here, was initiated and completed in the fall semester as apart of the LA 563/763: Programming and Thesis Preparation course. Supplemental material, including the Thesis Boards and the Thesis Presentation documents, were generated in the spring semester as a part of the LA 572/772: Design Thesis studio. Any inconsistencies between the different documents, in terms of research and design, should be excusedper the evolution of the project across the two semesters.



ADAPTATION

Leveraging Modern Narratives Towards Preservation and Public Uses of Pueblo Bonito's World Heritage Ruins In New Mexico's Central Chaco Canyon

A Design Thesis Submitted to the
Department of Architecture and Landscape Architecture
of North Dakota State University

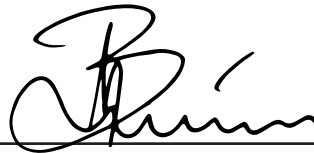
By

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In Partial Fulfillment of the Requirements
for the Degree of
Master of Landscape Architecture



Primary Thesis Advisor



Secondary Thesis Advisor

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TABLE OF CONTENTS:

signature page	3
table of contents	5
list of tables & figures	7

Proposal

thesis abstract	10
thesis narrative	11
project typology	14
major project elements	16
the site	18
the client	23
the user	25
project emphasis	26
project goals	27
schedule	28
presentation intention	30
plan for proceeding	31

Research

typological research	35
typological case-studies	36-53
Bethlehem Steelstacks Arts & Cultural Park	36-41
Landscapepark Duisburg Nord	42-47
Gasworks Park	48-53
research takeaways	54
literature reviews	56-67
Beauty Redeemed	56-60
Landscape Narratives	61-64
What Roles for Ruins?	65-67
literature review summary	68-71

Program

project justification	74-75
historical, social, cultural context	76-80
site inventory/analysis	82-91
performance criteria	92-95
space allocation/agency	96-97

Appendix

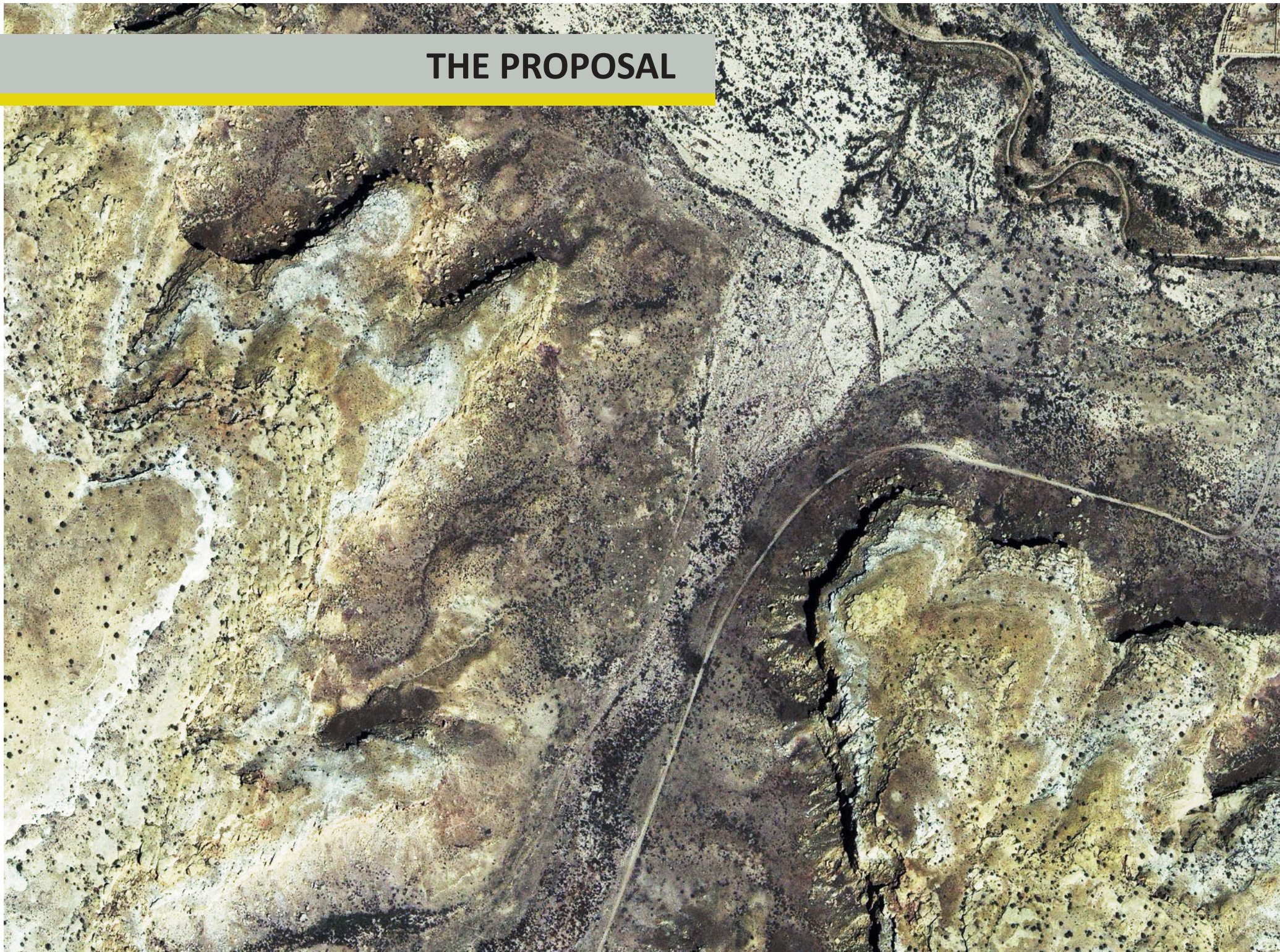
important sources	101
author	102
studio experience	103



FIGURES & IMAGES:

Page	Location Credit	Page	Location Credit
(cover)	no location Elle Oh	54-55	no location Talissa Decor
2	Chaco Canyon James Q. Jacobs	56	no location Beauty Redeemed
4	Duisburg Nord Latz & Partner	72-73	Pueblo Bonito William Horton
6	Chaco Canyon Morgan Tilton	74-75	Pueblo Bonito Jacob Q. James
8-9	Chaco Canyon NASA	76	Hunters Point Kensinger
10-11	Gasworks Park Wikipedant	77	Stonehenge Gareth Wiscombe
12	Pueblo Bonito Ann Sair	78-79	Pueblo Bonito Scott Warren
13	Pueblo Bonito James Q. Jacobs	80-81	Mesa Verde Wild Rafting
14	Chaco Canyon James Q. Jacobs	82-86	Pueblo Bonito Google Earth (edited)
15	Blaenavon Gary Arndt	87	Chaco Canyon NPS
16-17	Duisburg Nord Peter Latz & Partner	88-91	Pueblo Bonito Google Earth (edited)
18-19	Pueblo Bonito Steven C. Price	92	Chaco Canyon Peter Potterfield
20-21	Pueblo Bonito John Wiley, NPS, James Q. Jacobs	93	Chaco Canyon Robert Alexander
22-23	Chaco Canyon NPS	94-95	Chaco Canyon Denis LeBlanc
24-25	Pueblo Bonito Karen Greif	96	Pueblo Bonito Sanchez Saturno
26-27	no location Thomas Berns	98-99	Duisburg Nord Ruhr Tourism
28-29	no location Elle Oh	100-101	Duisburg Nord Peter Latz & Patner
30-31	Duisburg Nord Peter Latz & Partner	102	no location Joseph Reed
32	no locaction givens Charles Fred		
33	Pueblo Bonito NPS		
34	no location given Security Ledger		
36-37	Steelstacks Darren Ketchum		
38-41	Steelstacks WRT		
42-47	Duisburg Nord Peter Latz & Partner		
48	Gasworks Hattanas Kumchai		
49	Gasworks Patricia Fels		
50	Gasworks Seattle Edge		
51	Gasworks Almdudler26, Haag Associates		
52-53	Gasworks TIA Photography		

THE PROPOSAL





THESIS ABSTRACT:

This study focuses on creating new narratives to cultural heritage sites by comparing concepts of ruins from cultural heritage sites and post-industrial landscapes. Both landscapes share that unifying feature of ruins and the historical and cultural significance that comes with them. Such methodology has been the subject of many recent papers on the complex challenge of reclaiming post-industrial landscapes beyond an environmental engineering approach. In landscape design literature there is an approach to focus on industrial ruins as settings for parks worldwide. We propose a similar attention to cultural heritage ruins as parts of a new genre of parks.

To answer our research topic, we reviewed extensive literature about landscape narratives, landscape ruins, and post-industrial design approaches. We also analyzed how post-industrial landscapes evolved into ruins over time, the landscape design approach and challenges, and how their landscape revitalization schemes created a new narrative.

This thesis will be applied to the Chaco Canyon world heritage site and national park. Specifically focused on the on the central valley ruins of the three-unit mixed-use complexes. These ruins are representative of Pueblo historical and cultural heritage and will be used as a case study to investigate how the creation of meanings and narratives can enhance the qualities of this emerging genre of parks containing cultural archaeological heritage ruins and how it can be applied to them.



THESIS NARRATIVE:

Premise for Investigation

Since Richard Haag's success on Gasworks Park, post-industrial parks have been an ever growing and continuously refined design subject in landscape architecture. These designs are used to revitalize these industrial ruins and create a new narrative for these unusable spaces to give them purpose again.

I believe the same design principles of these post-industrial parks can be also applied to the ruins of cultural heritage sites to create new narratives. A successful narrative gives purpose and meaning to a site/design. An industrial complex when in use is a vernacular landscape based on function, but if the industrial complex goes out of business it is no longer a functional space. When that function of a function-based narrative is no longer there, the narrative dies and the landscape becomes without meaning. This happens in the form of an abandonment industrial site to become ruins.

This process is similar to the process of many cultural heritage sites with ruins, but the cycle of use to abandonment to ruins has happened hundreds, even thousands of years ago. But the premise is the same. Without a successful narrative the landscape is not used to its potential.



Premise for Investigation

Narratives are the story and also the means of telling that story. It is the fundamental way people shape and make sense of the experience and landscape. A landscape narrative is a mix of the sites history, use, the people that use it, and how that is all done. The narrative of Chaco Canyon is also not living up to its full potential. It is a world heritage site and a national park and I believe it is still underutilized. Its narrative is focused on the preservation and education of the Pueblo ruins but lacks the accessibility aspect that allows the public to also experience that historical and cultural significant landscape.

Creating modern narratives for these ancient landscapes will revitalize these locations with more use of people and function. This will then help fund and further protection and education of the landscape. These landscapes are not limited to just being remains that are picked apart by archaeologists and must be viewed from afar by the public. By designing with preservation, safety, accessibility in mind like post-industrial landscapes must. These sites can once again be used and appreciated by the public.





Context

The Chaco Canyon is located in the Chaco Culture National Park in northwestern New Mexico. The park is over 30,000 acres and Chaco Canyon is home to most well-preserved ruins of the ancient Pueblo people. The area hosts dozens of ruins in a variety of use and scale. The park is as registered UNESCO World Heritage site in 1987 and also U.S National Historic Place since 1966.

Chaco Canyon is an arid environment and only receives an average of 8 inches of rainfall a year. This is caused by the nearby mountains which creates a rainshadow effect. This makes the vegetation limited and mostly low scrubland and creates a dry dusty landscape. These dry environmental qualities are what has preserved the ruins of Chaco Canyon so well. The strong winds and sandy soil can also create a challenge for archeology and preservation work. Excavated sites and the painstaking work that went into them can be reclaimed and covered by the landscape if the site is not maintained correctly.

PROJECT TYPOLOGY:

Thesis Typology

As previously mentioned my landscape typology will be a cultural heritage site. A new narrative will be created for the site and the actual site design will be built on the layers of meaning and use from that narrative. Narratives and design elements learned from successful post-industrial sites will be used to as inspiration and guides to the cultural heritage site design.

Cultural heritage sites are often limited in narrative and use as landscapes. They are categorized into a strict use of archaeology, historical preservation and the functionally of the site is inflexible and specific. Successful landscapes are designed with a variety of programming and function to accommodate a wide range of uses and people. And if cultural heritage sites can be applied with new narratives that reprograms the landscapes with new layers of use, cultural heritage sites can become more than sites of history or reservation. They can become a new genre of parks.





Project Planning and Strategies

One element of planning that was effective in all three case studies was the community and local involvement with the project and sites. The most the local community was involved with the planning, programming and operation of the parks the more involved the public is and cares with their landscape.

Overall design elements of the site should be unique to each site and designed around the framework of the narrative and the original ruins. Duisburg Nord followed this effectively by designing the park in sections based on the sections of the original industrial uses. The design gave each of these sections a unique characteristics.

This is the biggest design takeaway. Everything should be designed with the narrative at its core.

MAJOR PROJECT ELEMENTS:

Narratives

A new narrative will be applied to my thesis site. The narrative will be the story and be the core the design of the site will be built around. The story of the narrative will be made of layers of meaning, uses, and the emotions that the site will express through design.

Narrative Devices:

Narrative devices are the design elements/tools that express the narrative story. These devices can be a variety of forms and uses. This could be in the form of interpretive signs with historic site photos to express the narrative of heritage.

Ruin Protection/Preservation Techniques:

Preservation techniques will be included in the design to protect the fragile ruins of the site. This can be railings and fences to protect the landscape for users. It could be also used to the landscape for the natural elements. Wall to block soil being blown back into the site recovering the ruins.



**Programmable Elements:**

The site will need new functions and uses to help create a well-used and successful landscape. Open spaces outside of the ruins could be programmed for sports uses or holding events. Stages could be built to be used for concerts or education presentation of the sites archaeological work.

Buffers:

To help protect the users from dangerous elements of the landscape and help protect the landscape from users. These buffers can be in the form of fences/railings, pathway setbacks or even elevating the pathways.

THESIS SITE:

Pueblo Bonito

Location: Central Chaco Canyon, New Mexico

Size: 3 acres

Typology: Cultural heritage site

History:

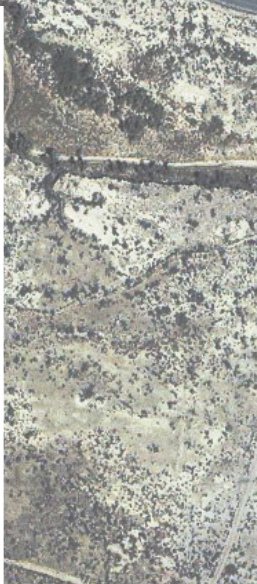
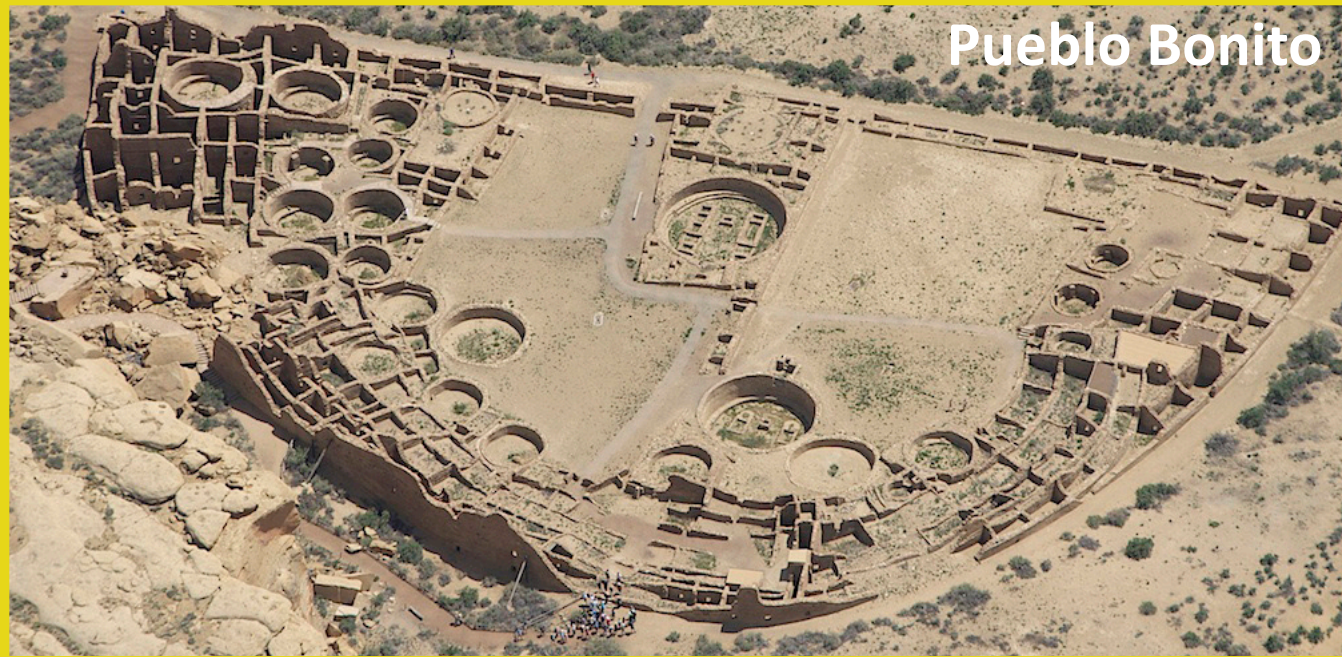
Pueblo Bonito was the largest great house built by the Pueblo people of New Mexico area. Now the largest and best-preserved ruins in the Chaco Canyon. The original site was built in stages over 300 years and was occupied from 828 AD to 1126 AD. The great houses were seasonal settlements and used for trade, ceremonies, politics for the Pueblo people. Pueblo Bonito was massive mixed-use complex. It had over 800 rooms and 30 Kivas, which are large round rooms used for religious rituals and political meetings. The settlement was tiered and four and five stories high. The design of the Pueblo Bonito was well thought out and with a complex design layout. The buildings and walls were designed to match constellation, sun, and lunar patterns. The Pueblo people abandoned Pueblo Bonito after years of drought and migrated out of the valley.



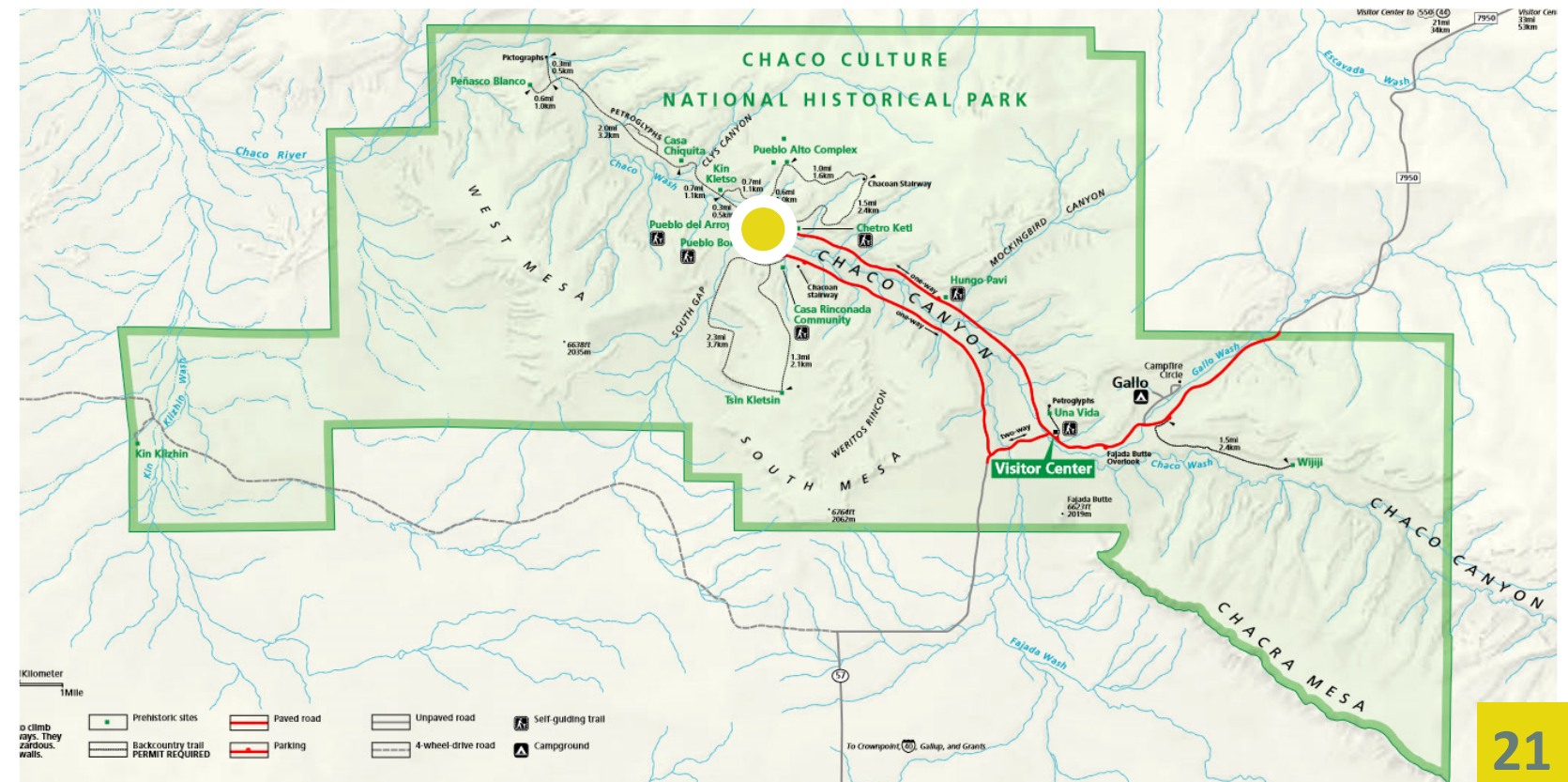


Ruins:

What remains of the great Pueblo Bonito house is a complex floorplan of squares and circles, with large open spaces in the center. Most of the site is made of short stone walls but parts of the site have structures several stories high. There are also sections of the complex with the only preserved wooden ceilings of all the Chaco Canyon. This small but significant portion of the site has been instrumental to archeology with understanding how these great houses were built. Pueblo Bonito's ruins have and will continue to be a major source of archeology and anthropological understanding of the ancient Pueblo people's history and culture.



SITE LOCATION:





CHACO CULTURE

NATIONAL HISTORICAL
WORLD HERITAGE SITE

Welcome
Stop at Visitors Center - 2.5 miles
Entrance Fee Required
see list for details
at all facilities
at all times



THE CLIENT:

The client for my thesis would be the National Park Service because the Chaco Canyon is located in the Chaco Culture National Park, this makes the client the Federal government. Having a government entity as a client has benefits and challenges. A large benefit is that government is run for the people and who you are working for should have the public's best interest in mind. There is also more public input and feedback involved than in the private sector. This can also create a large challenge because the design process is slowed down with the back and forth process with the public. Also, because the National Park Service operates for the public in a way the public is also a client because it is public land.

The UNESCO World Heritage Foundation would be a secondary client. Consultation with UNESCO will be needed to make sure the design does not interfere with the World Heritage Site acceptance.

The populations of Pueblo descendants should be involved with the design of Pueblo Bonito. The site has strong cultural and heritage ties and the Chaco Canyon is considered sacred land.





THE USERS:

One of the goals of creating an updated narrative for Pueblo Bonito is to include as much of a variety of users as possible. The site is public land, so the users have the potential to be anybody from the public. This includes designing a landscape that locals will repetitively want to use. This is a challenge because since this a national historic place and a world recognized heritage site the design will also need to include tourist users.

As mentioned the Pueblo Bonito has historic and cultural significance. Archaeologists, anthropologists, and historians will be users of the landscape, but these users have drastically different needs that the general public and the design will need to accommodate their as well.

PROJECT EMPHASIS:

1: Defining what is a narrative and how/what is needed to successfully build and integrate a narrative into a landscape

First, what is a narrative will need to be defined and what they do and how they are used. Defining and understand the core components and principles of narratives will be needed to understand how to create a successful narrative.

2: Study the narratives of post-industrial landscapes

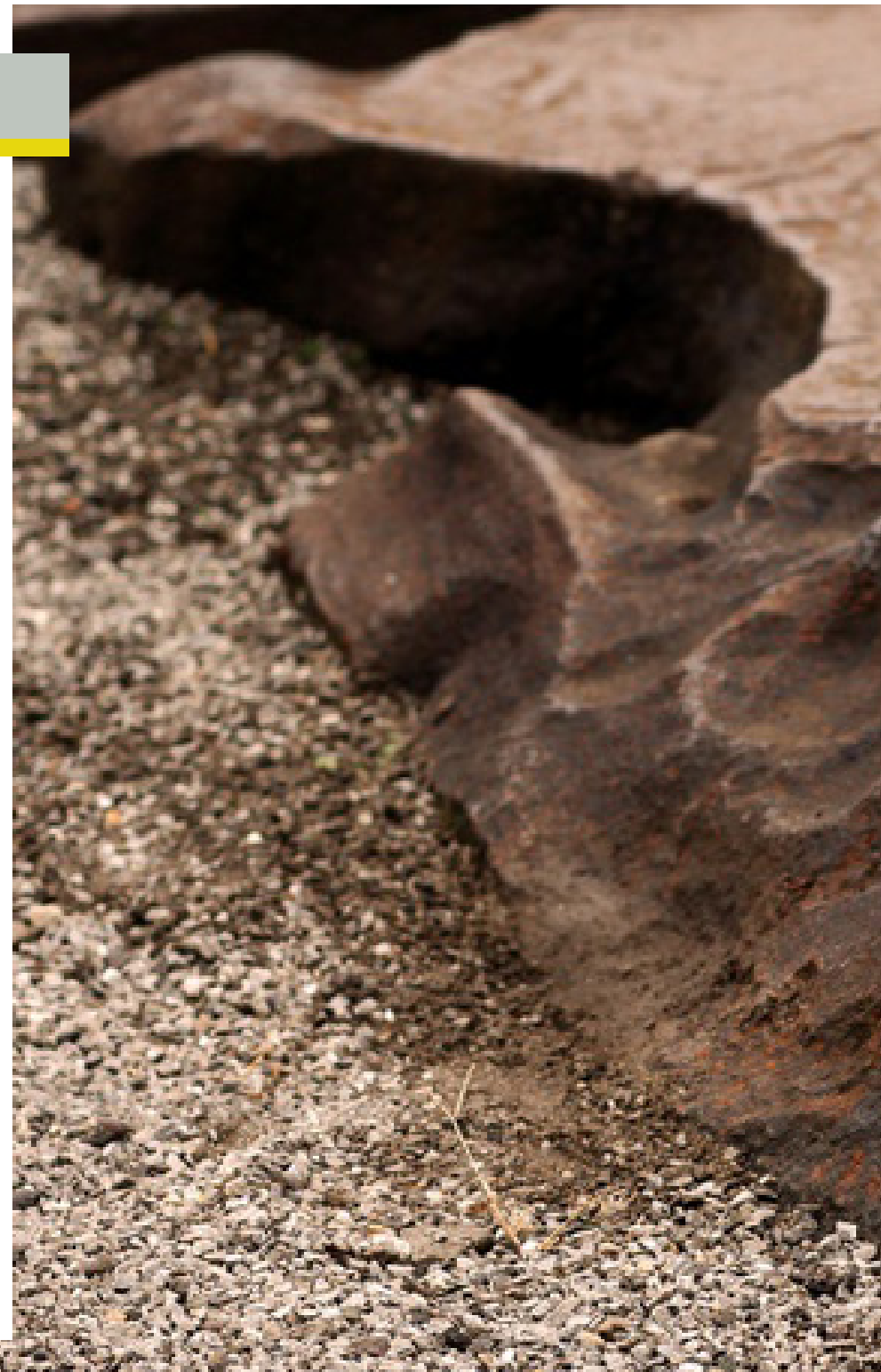
Examining and dissecting the story and the means of telling that story of successful post-industrial landscapes will help building knowledge of how to create a narrative for a landscape with ruins.

3: Preservation of archaeological sites

The biggest challenges and biggest priority with the design of Pueblo Bonito is protecting the historical landscape. Learning how archaeological sites are used and techniques used for preservation will be crucial in understanding how to design with the ruins and how to also protect them.

4: Similarities and difference of ruins between cultural heritage sites and post-industrial landscapes

Compare and analysis the major similarities and differences between the two landscapes and their ruins. Consider how they are used differently prior and after abandonment. Examine the location (rural vs urban) differences and the affect it has on the landscape.





PROJECT GOALS:

1: Learn how to create effective narratives.

Narratives are the core and foundations of a successful work and honing the skill of creating a meaning narrative and understanding the devices needed to express that narrative will help me grow as a designer.

2: Build a greater understanding of cultural heritage and post-industrial landscapes

These two landscape genres are a personal favorite of mine and I hope to work be able to work on them as a professional.

3: Create a final design and product that I am proud of.

The thesis idea and project is completely my own I take great pride in the final results.

4: I want my thesis to contribute knowledge to the field of landscape architecture

My thesis should contain an original idea that is backed up through reputable research.

5: Obtain a Master of Landscape Architecture degree

My class will be the first of NDSU's landscape architecture program to be eligible to receive a masters and I would like to be a part of the pioneering class.

YEAR 5 START: August 20 , 2018

PROPOSAL:

Draft Due: Sep: 27

Final Due: Oct 11

PROGRAM:

Draft Due: Oct: 25

Final Due: Dec 13

THESIS SCHEDULE:

DESIGN:

PRESENTATIONS: Final Exhibit (Digital) Due: Apr 19
Final Exhibit (Physical) Due: Apr 22
Thesis Presentations: Apr 23-26
Final Thesis Doc Due: May 10

YEAR 5 END: May 15 , 2019

PRESENTATION INTENTION:

1: Thesis Project Book

This document will contain this thesis proposal, the thesis program, and the report of research and analysis done. It will record the final thesis takeaway and solution.

2: Project Boards

A set of display boards printed and hung. These boards will contain graphics explaining the thesis design process and the final design solution.

3: Physical Model

A scale, physical model will be included with the display boards to help convey a design element/design idea.

4: Thesis Presentation

A digital and oral presentation including, all the previously mentioned presentation elements, explaining the entire thesis process and the final design solution.





PLAN FOR PROCEEDING:

My basic overall thesis plan is creating a **schedule** with a list of deadlines and objectives to complete. The most important part will be sticking to that schedule

After the proposal I plan on **reading research** about the major project elements, such as narratives, recycling post-industrial landscapes, and archaeology preservation. This will build a stronger foundation for myself on my thesis concept.

During and following this research I will create an in depth site **inventory and analysis** of my thesis site, Pueblo Bonito.

Based on the research, and the inventory and analysis I completed I will start **designing** a solution for my thesis idea.

After the design for my thesis solution is completed I will begin writing and creating graphics for a final **presentation** that explains the process and solution. This will be in the elements mention in the presentation intention.

RESEARCH









TYPOLOGICAL RESEARCH:

Things to consider

1. The narratives and their concepts and elements of successful post-industrial landscapes.
2. The design strategies and elements of successful post-industrial landscapes.
3. How do these designs express the narratives. Are they effective?
4. What were the challenges of designing with the original industrial ruins. How were they overcome.

The projects chosen:

1. **Bethlehem Steelstacks & Cultural Park**
WRT
2. **Duisburg Nord Landschaftspark**
Latz & Partner
3. **Gasworks Park**
Richard Haag

Bethlehem Steelstacks & Cultural Park:

Designer: WRT

Typology: Post-industrial

Location: Leigh valley, Pennsylvania

Size: 9.5 acres

Context

Summary

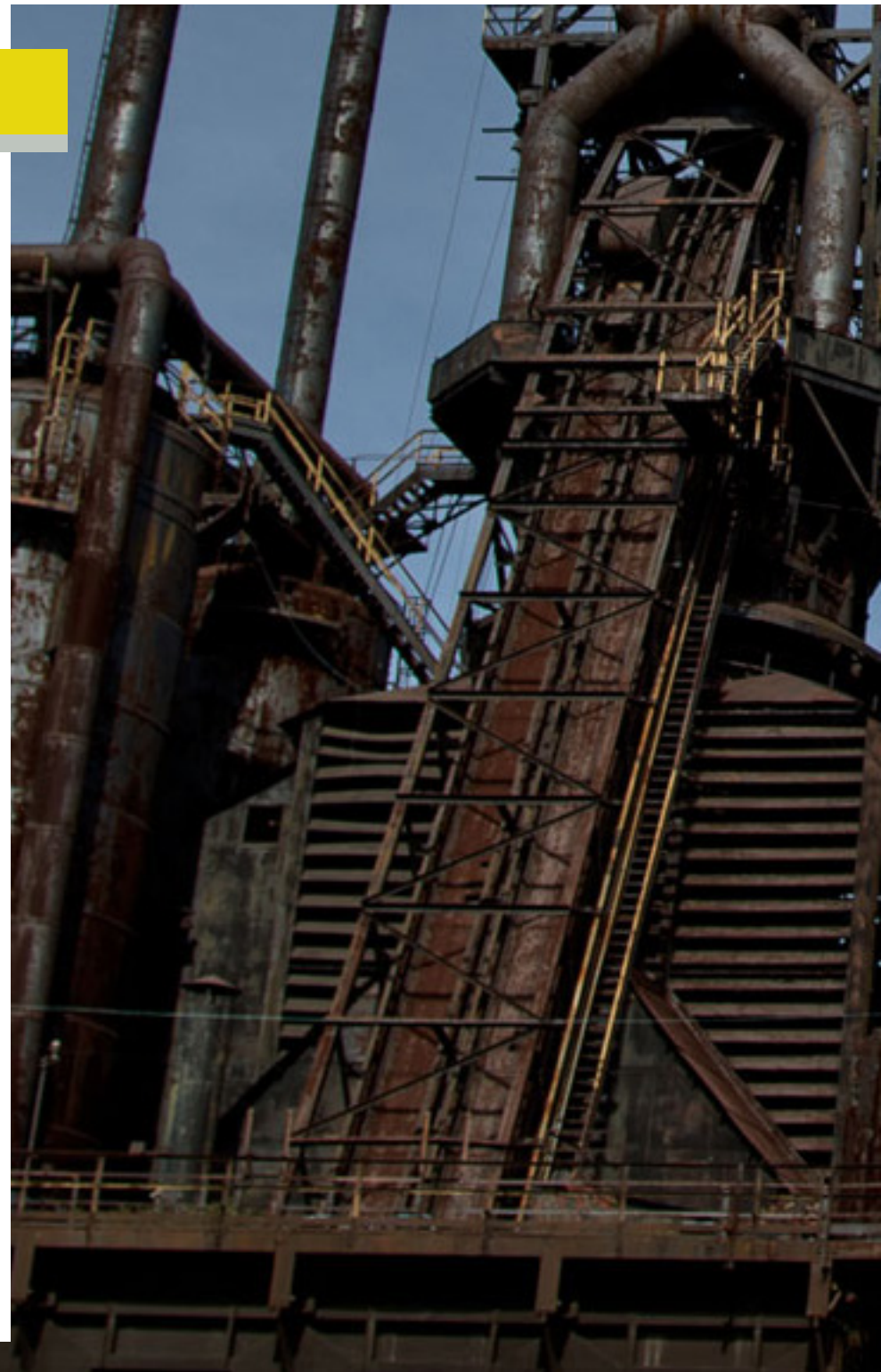
The Bethlehem SteelStacks & Cultural Park is an example of a post-industrial park with a focus on the arts and culture as the keystone of the design. The revitalization of the landscape also revitalized the local town and surrounding area. It re-forged a connection between the manufacturing heritage and impact of the Bethlehem Steel site to the historic downtown of Leigh Valley to the Leigh River and the Leigh Arts University.

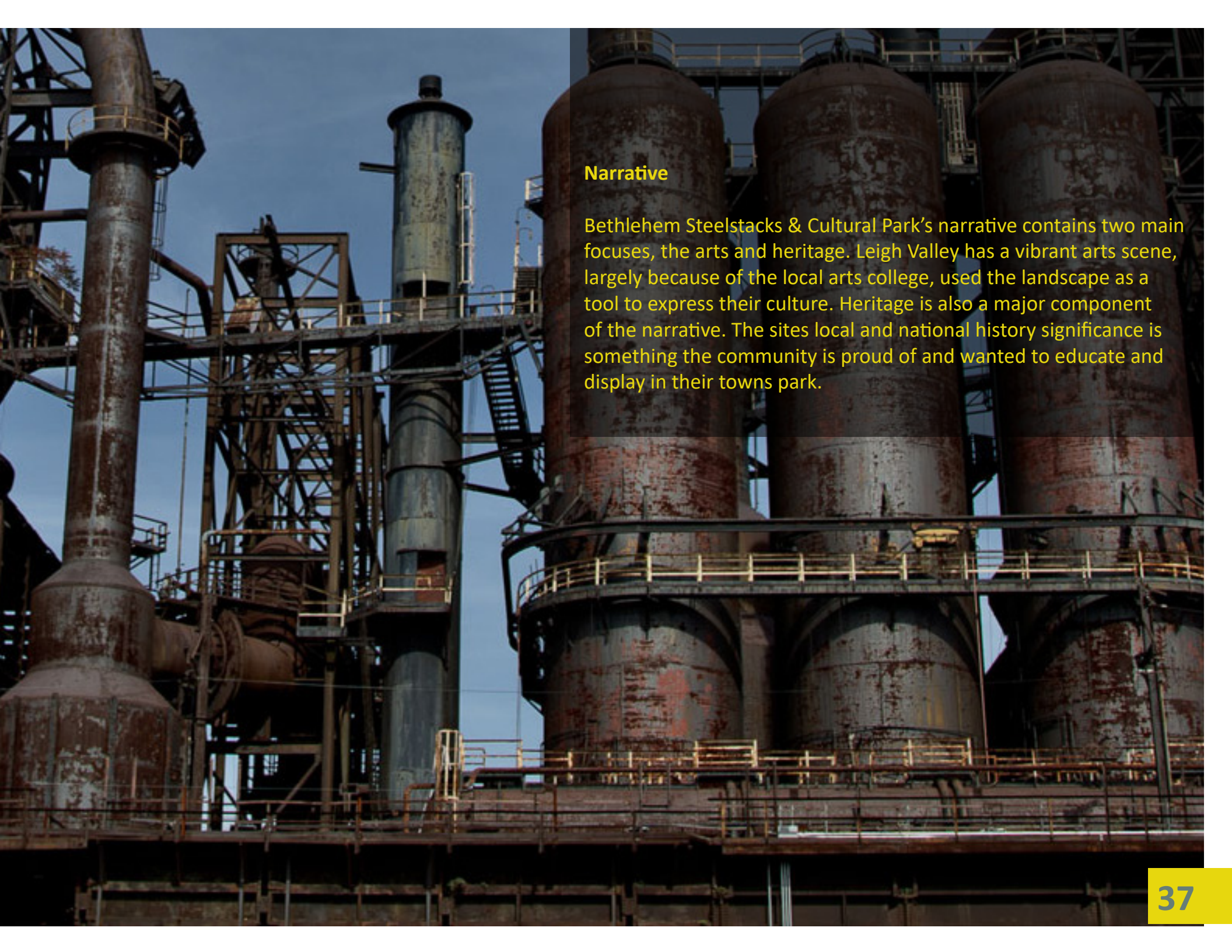
History

The site was the original production plant of the Bethlehem Steel Company which was founded in 1863. The plant was in production for over a hundred years the site was the pillar of the local areas economy and community. At its peak over 30,000 were employed at the plant. In 1995 production was moved out of country and the plant was shut down leaving the factory to be abandoned.

Ruins

The landscape left behind contained industrial ruins of one of the largest steel production plant in the United states. Over two-hundred-foot-tall furnace towers loom over the site and from furnace "A" to furnace "E" stretch a quarter of a mile long.





Narrative

Bethlehem Steelstacks & Cultural Park's narrative contains two main focuses, the arts and heritage. Leigh Valley has a vibrant arts scene, largely because of the local arts college, used the landscape as a tool to express their culture. Heritage is also a major component of the narrative. The sites local and national history significance is something the community is proud of and wanted to educate and display in their towns park.

Bethlehem Steelstacks & Cultural Park:

Design Strategies/ Designs

How was design planned/funded

Almost immediately after the plants closing the community of Leigh Valley and the Bethlehem Steel Company began planning how to use the abandoned landscape. They set funds aside and created a Tax Incremental Financing (TIF) district on the property, which dedicated any future tax dollars generated from new business on the site into helping revitalize the former steel plant. (Source) Local nonprofit organizations were also formed to created, plan, program, and run the park, and because they were created and run by members of the community the landscape is programmed to best fit the community's needs.





How and what did they design

Bethlehem Steelstacks & Cultural Park, like the name suggests, is designed around two strategies. The heritage of the industrial site and the use/function of the arts.

The design educates and expresses the history of the production plant by allowing users to walk through the site on elevated pedestrian “promenades” that follows the route of the original materials when being processed into steel. Along the pathways interpretive signs inform the users of the history, processes and use of the industrial ruins.

Many of the design elements and programming in the park is focused around the arts and uses the industrial structures as a framework. Public art is placed throughout the park and the landscape itself acts as a gallery for local artists. There is three stages/events spaces in a variety of scale is flexible for programming a wide range events/uses. Colorful neon lights shine on the industrial ruins that tower over the park. Softening the stark and rigid forms of the furnaces. These lights blend together the original landscape with the new narrative of the arts.

How did the design/design elements express narrative

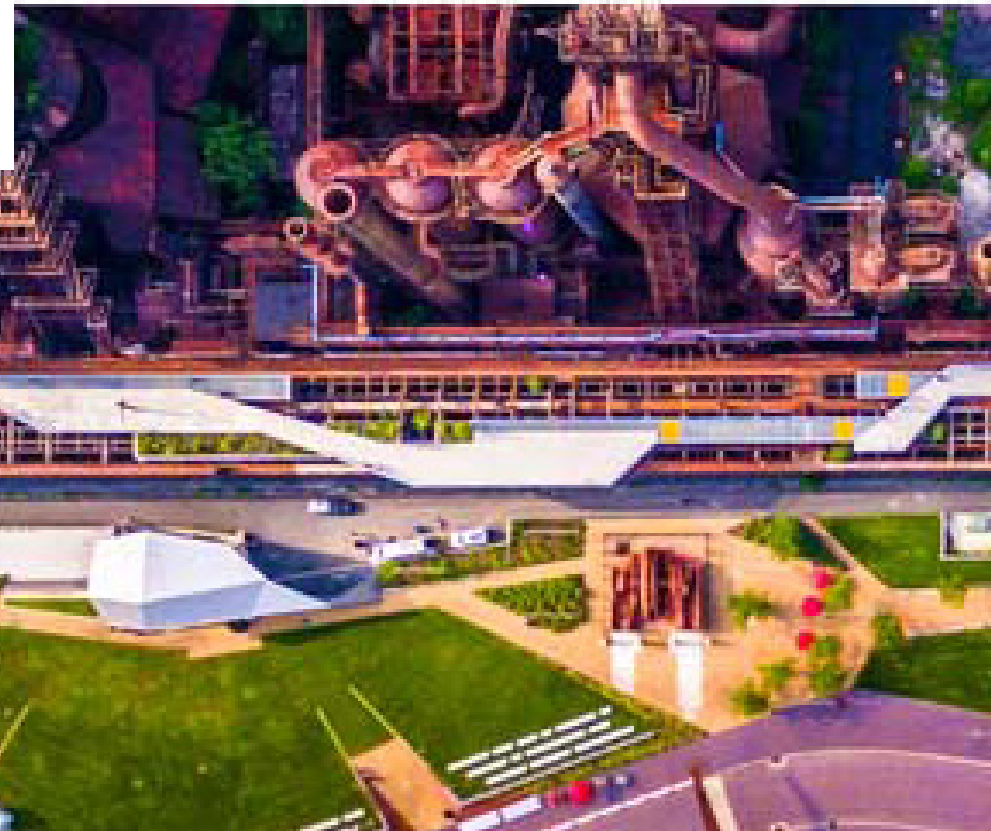
The elevated pedestrian’s pathways and signage woven through the industrial ruins act as a story telling device of the sites history and heritage.

Bethlehem Steelstacks & Cultural Park:

Conclusions

What was the narrative takeaway? How can it be applied to my Thesis?

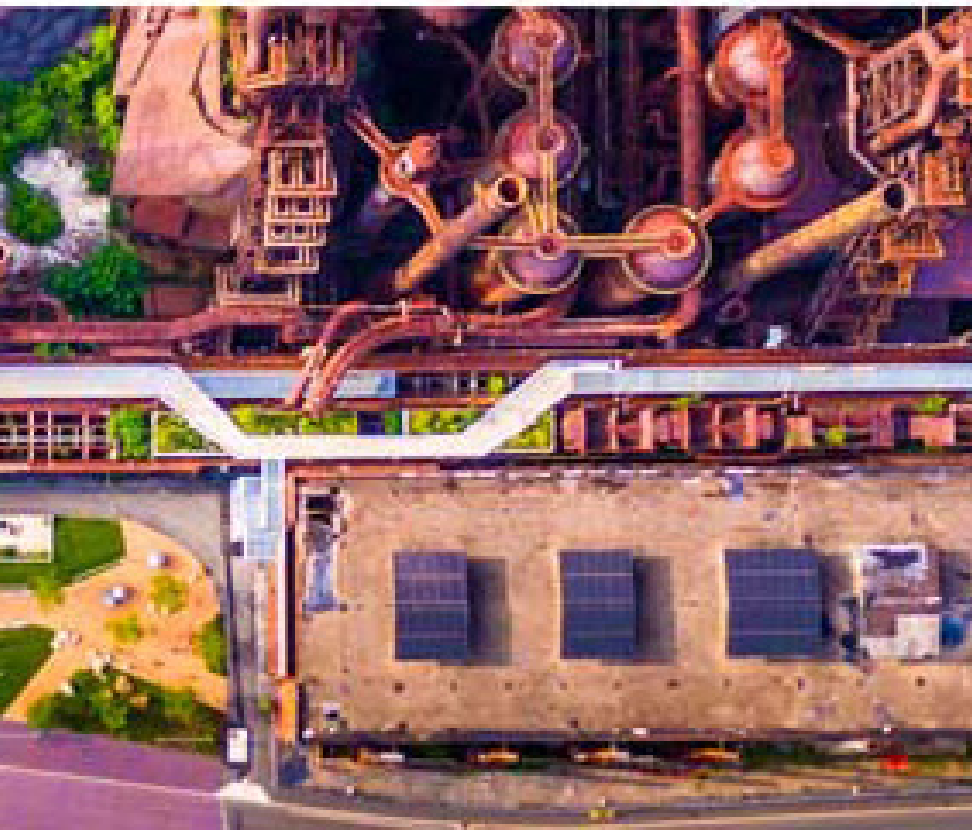
Bethlehem Steelstacks & Cultural Park is an example of blending two narratives. The heritage narrative is pushed by the inclusion of the industrial ruins as a site experience and not just a visual interest. Allowing users to follow the production path while immersed in the industrial landscape from the raised pathways creates stronger experience of the history that site contains. The arts narrative is pushed by the added design elements and programming. The sites most prominent features is used to express the arts. These new features added on to the industrial ruins tell the story the site has a new use and function. From the production of steel to the production the arts.





What was the Design strategy/design takeaway? What were key design elements? Can these be applied to my thesis and if so how?

The elevated pedestrian pathways are an effective way to insulate the users from safety/liability factors of the landscape and ruins like the dangerous structures and the contaminated soil. This also insulates the landscape from the users. This could be used to preserve sensitive and fragile ruins in cultural heritage sites like Chaco Canyon. It can be used as a buffer between users and ruins.



The arts design style contrasts are sleek and modern and contrast with the old and rustic. It is suggestive of the dual narrative of the new art and culture being manufactured in the leigh valley and the old historic heritage section that represent the previously produced goods from the Bethlehem steel plant. The contrast of the styles creates a new atmosphere that is needed when reviving a landscape and narrative. Design styles is an principle that will need to be considered when revitalizing the Chaco Canyon narrative and ruins. The use of lighting can be an effective narrative device. Without lighting the industrial ruins would be a dark and looming shadow over the park night. But when lit with playful colors the structures are a point of interest and the overall atmosphere it altered and refreshing. The lighting of the ruins can have a strong impact on the sites atmosphere.

Landschaftspark Duisburg Nord:

Designer: Latz & Partners

Typology: Post-industrial

Location: Duisburg, Germany

Size: 444.8 acres

Context

Summary

Duisburg Nord is one of the most well known post-industrial landscape designs. The park is extremely inclusive of the industrial ruins of the former steel and coal plant and adapted the ruins with modern programming. The site has intricate site remediation.

History

Duisburg Nord was one of the largest coal and steel plants in Germany. In the 1980s due to political reasons Germany reduced the amount of steel the country produced and the plant was shut down in 1985. The site was surrounded by the cities of Duisburg and Meiderich and left an unused void in the community.

What's there/Ruins

The steel and coal plant left a wide range and scale of industrial ruins. Massive furnaces, gas tanks, concrete storage bunkers for raw materials, railway bridges that extend over the site. The plant also left the landscape polluted and contaminated.





Narrative

Duisburg Nord's Narrative is the focused around memory. This is different from preservation, which is often the core narrative of post-industrial landscapes. The designer, Peter Latz described memory as a transient quality, and that memory shifts and changes with time. This narrative allows an interesting flexibility with the design. The idea is that you always have the memory of the original use and but are now experiencing it in a new way. That preservation does not mean keeping everything hundred percent original but on focusing memory and feeling of the space. Peter Latz described his memory narrative with the idea, "that a grandfather, who might have worked at the plant, could walk with his grandchildren, explaining what he would do and what the machinery had been used for.

Landschaftspark Duisburg Nord:

Design Strategies/ Designs

How was design planned/funded?

After the plant was shut down and abandoned the local community quickly took action and began discussing what to use the site for. Both towns grew around the plant over the years and because of the scale of the site and expensive land value in Europe, the former plant could serve the community well as a park. A design competition was placed for the site and out of five contestants Latz and Partners won the design in 1990.

How and what did they design?

When examining the overall design of the Landschaftspark you'll notice that the park is designed in components/sections. These sections are based on the sections of the original plant, but now each section's ruins are programmed around a new function or use. The material storage bunkers that are concrete boxes with high walls now store intimate gardens. The gas tanks on site are filled with water and used for scuba diving.



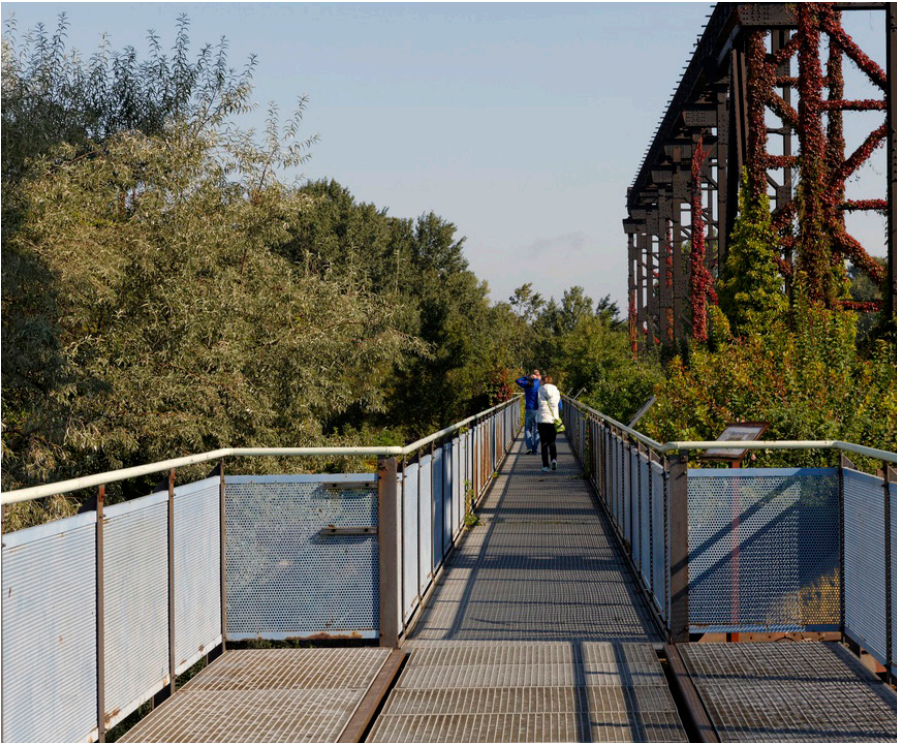


How and what did they design

The core design element of Duisburg Nord is that the site was sectioned off into the original functions of the industrial ruins and each section was preprogrammed with a new function that only at that one section of the site. An example is the material bunkers will used to create small intimate gardens, and that function is only found there in the park. While the gas tanks were designed as a water feature and now used for scuba diving.

How did the design/design elements express narrative

Even though each section is different, because they were designed with the narrative at its core the site design is still effective and holistic. These two examples still hold true to the narrative even though the designs and functions are completely different.



Landschaftspark Duisburg Nord:

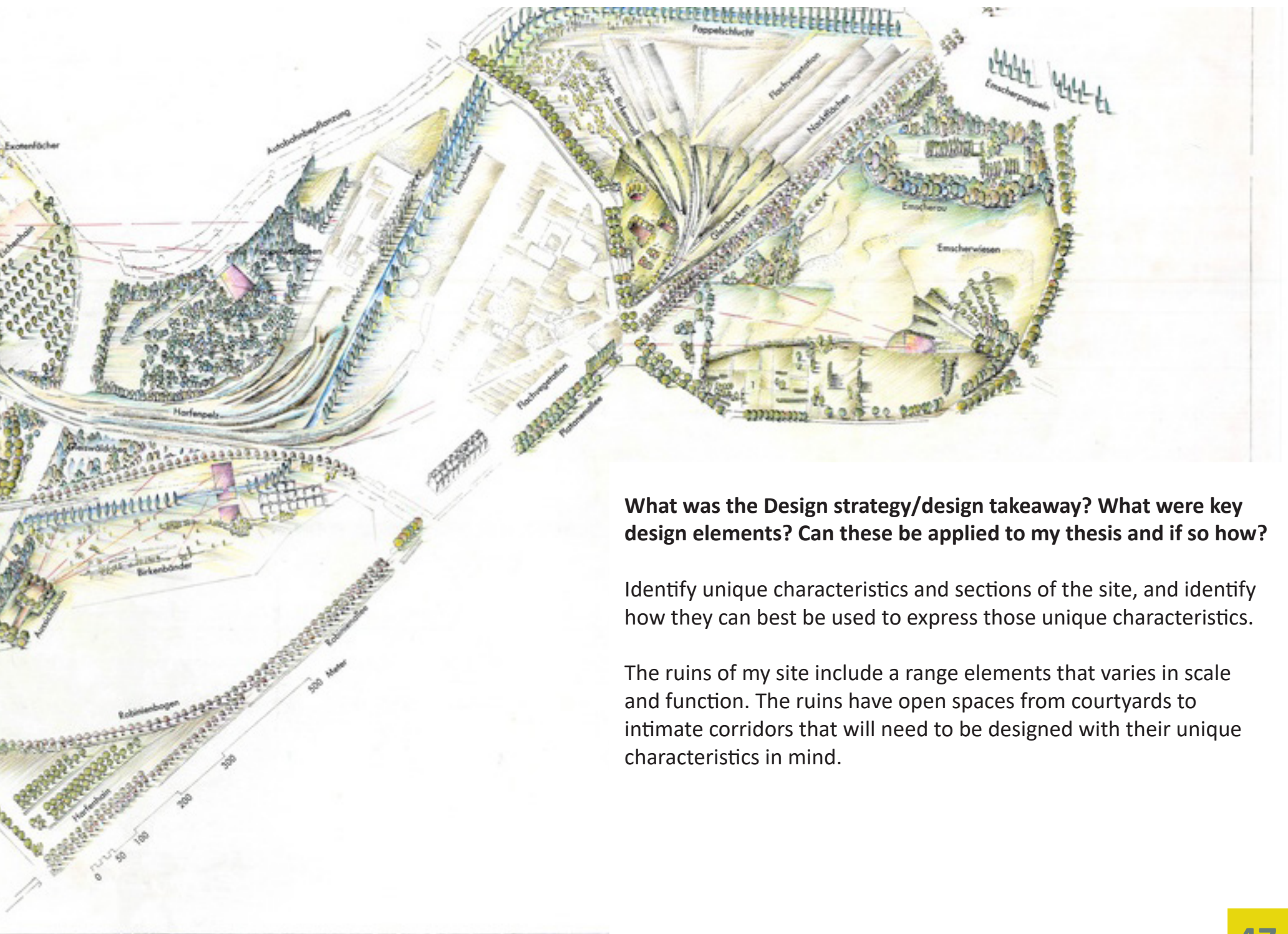
Conclusions

What was the narrative takeaway? How can it be applied to my Thesis?

The core narrative should be a conceptual idea that can include layers of other principles and ideas. Rather than having two narratives used together around two different ideas. Build a narrative that can include the two ideas to more effectively blend them in a holistic design.

This will be needed for my thesis because the site will need to accommodate a wide range of uses and people, and will need a narrative that can include of them.





What was the Design strategy/design takeaway? What were key design elements? Can these be applied to my thesis and if so how?

Identify unique characteristics and sections of the site, and identify how they can best be used to express those unique characteristics.

The ruins of my site include a range elements that varies in scale and function. The ruins have open spaces from courtyards to intimate corridors that will need to be designed with their unique characteristics in mind.

Gasworks Park:

Designer: Richard Haag

Typology: Post-industrial

Location: Seattle, Washington

Size: 18.1 acres

Context

Summary

Richard Haag's Gasworks Park is one of the original post-industrial landscape prototypes and has had massive impact on the landscape architecture field. Gasworks Park opened in 1975, a time when the only option of abandoned industrial landscapes was to be disguised to destroyed. Instead the former energy gasification plant was turned into a greenspace that service the community and inspired a new genre of landscapes.

History

Gasworks Park was originally owned by the Seattle Gas Company. The plant operated from 1906 to 1956 when most of Seattle's energy came from gas. When the city turned to alternative energy uses the plant was sold to the City of Seattle and discussions of what to use the industrial landscape began.

What's there/Ruins

When the site was acquired by the city almost all the landscape's soil was toxic and contaminated and was in need of treatment. All the original production structures remained on site. Two groups of towers (four gas towers, and two oil towers) and an array of tanks that varied in size all connection in a maze of piping. Nearby but separated from the towers the pump house and boiler room were located.





Narrative

When Gasworks was decided to become a park, the focus of the narrative was built around usable greenspace along with this soil remediation to make the site usable and safe. When Gasworks Park is discussed it is usually on the advanced phytoremediation of the site which was a new practice when designed, and the use of industrial ruins comes second.

This is because the narrative of preservation and reuse of the industrial ruins came later from Richard Haag. The potential of the narrative and use of the ruins was pushed as far as possible but is unfulfilled due to understandable circumstances. The idea of using a post-industrial site as a park was new, but also including the use of the industrial ruins was untried and considered unsafe and a large liability. This limited the use of the ruins limited the narrative as well.

Gasworks Park:

Design Strategies/ Designs

How was design planned/funded

When the park was purchased for by the city of Seattle there was a debate with the public between using the site for a park or to develop it. A few local politicians pushed for the idea of the park and succeeded to convince the public that would be the best use of the site for the community. For the site to be used as a park the soil need to be treated. Richard Haag was hired to do the site analysis of the future park and his focus was on the fixing of the landscape, so it could be used for simple park programming. When visiting and researching the site he discovered that this was the last gasification plant in the United States and urged the community to preserve the industrial ruins for the “historic, atheistic and utilitarian value”.





How and what did they design

Gasworks Parks overall layout is designed in four components. The waterfront, the large hill of contaminated soil, the industrial towers and the industrial pump house and boiler room. The parks main use is open greenspace and park programming and the use of soil remediation. The waterfront allows users accessibly to the bay, fishing, and a pathway that follows the waterfront's edge. The hill is used for phytoremediation but also for park open greenspace. The industrial ruins of the site carry more of a visual use. The majority of towers and tanks were surrounded with a chain-link fence and is inaccessible. The pump house and boiler room are two large pull barn looking structure and were converted for park programming. The boiler room is a 5,000+ sqft picnic shelter, and the pump house is "Playbarn". The Playbarn is an interactive jungle gym made of the original piping and tanks of the pump house.



How did the design/design elements express narrative

Gasworks Park's design is mostly just open greenspace that allows the landscape to be flexible for uses and programming. It has the space to hold large festivals and rallies, but can also be used space for a small family to fly a kite. This flexibility of use and scale of use is what makes the park and greenspace narrative successful. The design is hit and miss with the historic preservation narrative. Fencing off the majority of the ruins creates a disconnection with the narratives of appearance of the heritage and function of the original site. The use of an abrupt chain-link fence does not help this. The use of the pump house and boiler room is the opposite however. The adaptive reuse of the space allows users to touch and feel the ruins and the history that comes with them. This up-close interaction of the materials, forms, and structures creates a stronger bond to the space. The reprogramming of the space to a picnic shelter and playground also works for the park narrative.





What was the Design strategy/design takeaway? What were key design elements? Can these be applied to my thesis and if so how?

The biggest design takeaway from Gasworks Park is the full inclusion of the ruins. Intuitive and creative design measure is needed to safely allow users as much accessibility as possible to the ruins. If a space cannot be used, use more creative means of a buffer than just a tall fence. This disconnection of the ruins to the landscape is understandable from Gasworks Park because of the limitations at the time, but can be learned from now.

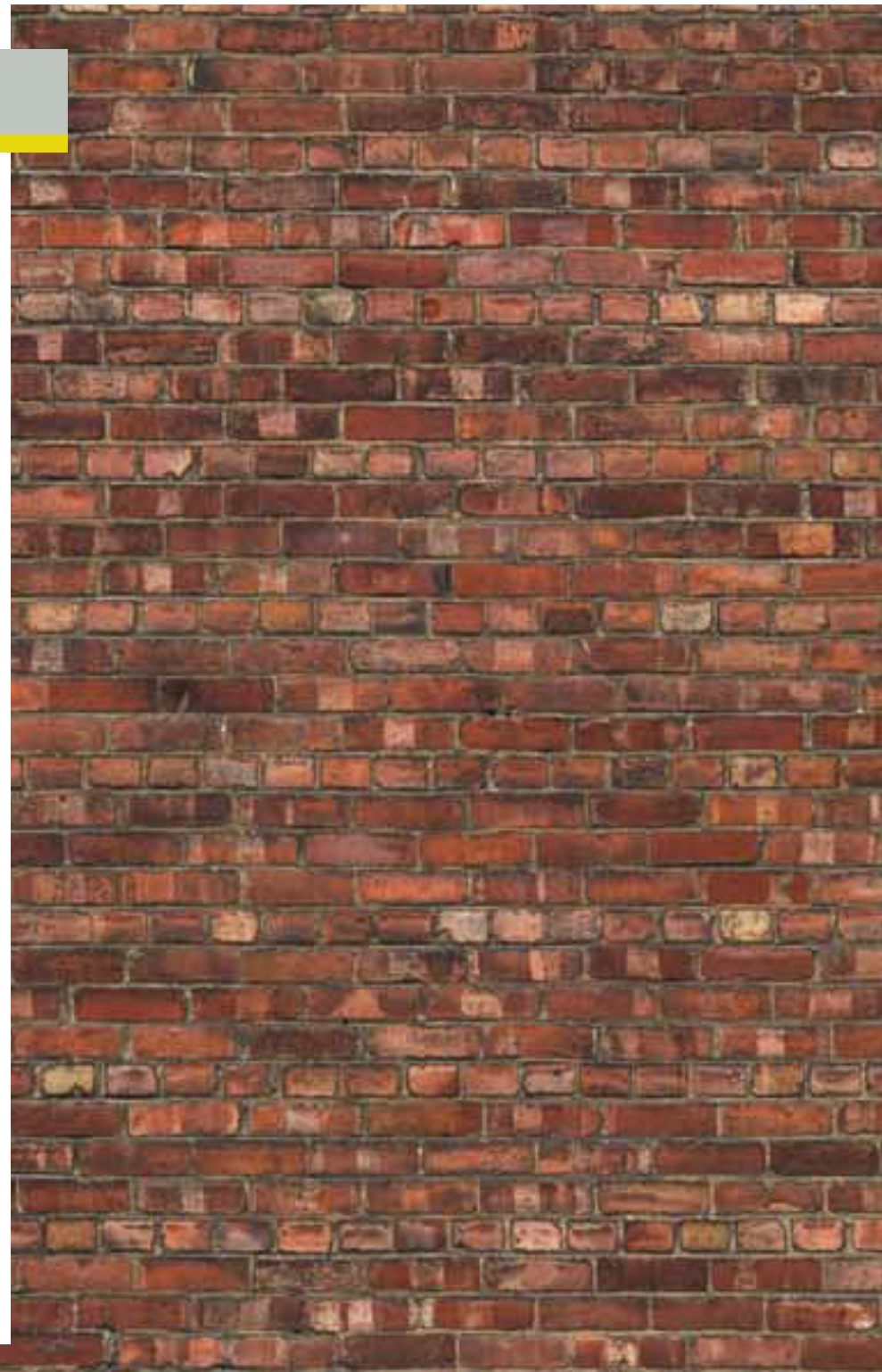
RESEARCH TAKEAWAYS:

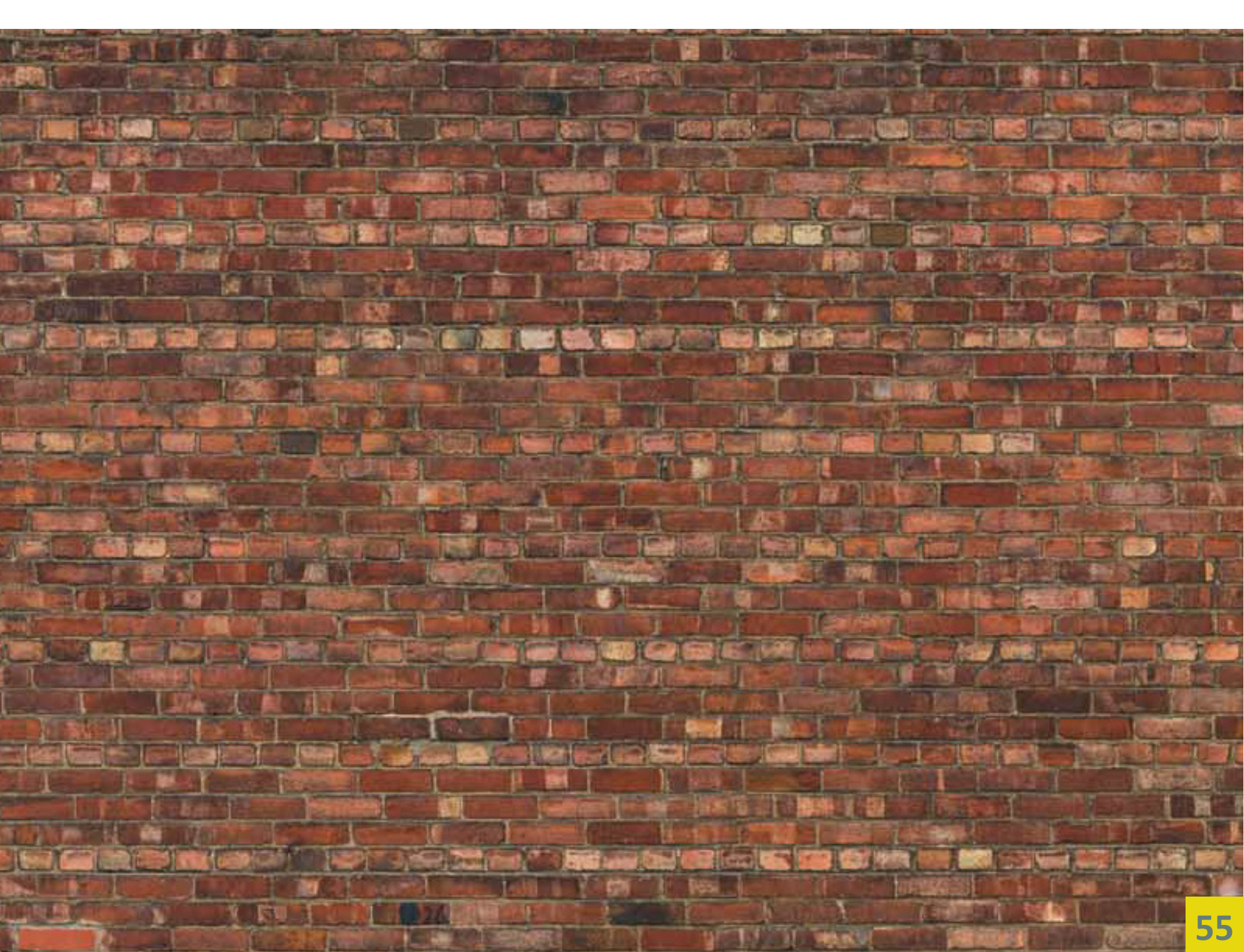
Narratives

All three of the case study designs had a different approach and depth to their narratives. The most well thought out and effective was Peter Latz's narrative used in Duisburg Nord's Landschaftspark. The narrative was based around memory. It used preservation in a unique form because like memories, landscapes shift and change over time. The memory of the original use of the site still exists but now its altered over the years.

Bethlehem Steelstacks & Cultural Parks' narrative was two different narratives used in the same landscape. The narrative was base around the arts and heritage and how to express them. Both were successful because of the straight forwardness of expression, but maybe if the two narratives were instead to major components under an overall larger narrative they would have blended into more of a holistic narrative and design. Therefore, Duisburg Nord's narrative was so effective. The use of memory as the foundation of the narrative included gave Latz flexibility to build the narrative with layer, such as preservation, but an altered form. This blended the different ideas, functions of the site design in the end.

Gasworks Park had the least effective narrative especially around the ruins of the site. The design around Gasworks seemed to be mostly the function and remediation.





LITERATURE REVIEW:

Title: Beauty Redeemed

Subtitle: Recycling Post-industrial Landscapes

Author: Ellen Braae

Literature Form: Book

Page Count: 335

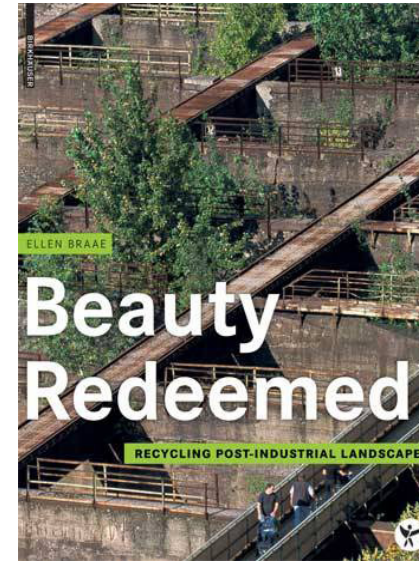
Abstract

Beauty Redeemed is an in-depth book on the reuse and conversion of post-industrial landscapes and supports its ideas/information with fifteen post-industrial case studies (all located in Europe). The book covers the entire process of the conversion.

Topics in Literature

Beauty Redeemed covers the entire timeline, from start to finish, on how post-industrial sites began to how post-industrial landscape designs were built and designed. Braae begins by explaining how post-industrial landscapes were formed, how they were used and designed, and how they were abandoned into ruins (de-industrialism). Then introduces how post-industrial designs we first thought of, how they were used as a design intervention on unused landscapes, and how post-industrial landscapes became successful.

Braae not only covers the historical and statistical information but also the ideas, philosophy, aesthetics, and feeling of post-industrial landscapes. The author explains how cultural heritage in these post-industrial sites were found. The philosophy of how and why people find the rough ruins of these industries fascinating and beautiful. The book breaks down the aesthetic and atmosphere of these landscapes and why we feel the way we do about them.



Beauty Redeemed

Topics of Focus

Braae covers a wide range of topics with converting post-industrial sites but I focused on the sections: **ruins as a monument** (the cult of ruins), **the value of ruins**, **building a future with ruins** (processing ruins and their fragments).

I will also use Beauty Redeems case studies as design examples for how and why these landscape conversions were successful. All fifteen case studies are useful for reference of post-industrial landscape designs and themselves provide a reference to verify Braae's ideas of industrial ruin conversions.

Views

Braae describes that the use of ruins as a monument is not a new idea that have evolved from the conversion of post-industrial landscapes, but a topic of appreciation on themes for centuries. Ruins have been used for a variety of cultural implications in the arts. Baroque paintings used the ruins of abandoned churches as a backdrop in dramatic paintings and tales of castles in disrepair and rumble have been the settings for numerous stories and folklore. Just by viewing works of arts, a tool to express one's culture and ideas, through the centuries we can confirm that ruins have always been appreciated and used as monuments.

This timeless fascination with ruins described by the author comes from being culturally conditioned with historical awareness. Braae explains that we as people find interest in ruins because of our interest in time and history. That we are conditioned to find that interest in the duality of the permanence and impermanence of the ruins.

I agree with the author. Ruins are the visual and physical representation of time and cycles. That everything begins and ends, and we find unintentional interest in this because people are a part of this same cycle. Ruins are especially effective at the expression of time and cycles because they are manmade creations from a different time that came and went. We can imagine that one day we could also be a part of these ruins.

But ruins also have a special quality to them that we find attractive. Even though they are a component from a cycle that started and ended pieces remain. That fragments can still remain (physically) for eras after the civilization that built them faded into history.

LITERATURE REVIEW:

Views continued

Ruins are seen as monument as well because of the sheer size, materials, and former functions explains Braae. Intentional monuments that are designed and built often are large in size, created with a interesting material selection and the idea (or function) they are designed to remind us of are often bares significance.

This comparison of monuments and ruins I believe is an accurate connection. That we are drawn to the large scaled, that we find interest when the materials differ from the norm we experience every day, and that we appreciate the roles the past. This can specifically be applied to industrial ruins. The sites are often enormous, built with rugged and complicated forms and components that catch the eye, and the past functions of these site interest us these ruins once created useful (to people) objects. I can see how industrial landscape's past functions are found interesting because these industries supported, often, whole communities. That local communities that live nearby these industrial ruins are appreciated by the local because they, as Baare describes "a testimony to a bygone past".

The value of ruins is broken down by the author with absolute values and sub values. These primary absolute values are the age value, and the historical value. The sub values are art and use according to Braae.

I agree with historical value being a absolute value on how we value ruins because of the same reasoning of how historical values, like discussed previously in my review, are the major backing of why ruins can be seen as monuments.

I disagree with the authors view of age being an absolute component to value. The success and interest of post-industrial sites prove that people site value ruins that are "recent". The industrial site and ruins were often abandoned only decades before they were converted, and users still place a strong appreciation and value to them. The park Landschaftspark Duisburg Nord we designed less than ten years after the original industrial site was abandoned, yet it is a universally used example of a successful post-industrial landscape.

Beauty Redeemed

Views continued

I agree with Braae's sub values of art and use, but I also would agree if they were considered primary/absolute values as well. Art and use/function can significantly add to how much interest and appreciation we have to a ruin. I believe art and use can substitute a ruin's lack of historical or age value with a different set of interests that appeal users. Art can come in the form of beautiful or unique architecture. Intriguing use of a ruins can come in the form of having a complicated visual system. Industrial ruins support this value. A complex array of piping sparks a fascination with the view on how all the parts work together, what they do, and what was created in the end.

Conclusion

Beauty Redeemed is a dense source information on the conversion of industrial landscapes and their ruins. Even though I focused on specific sections of the book that directly relate to my thesis idea, I will continue to read and review the rest of Beauty Redeemed to better understand the complex process and ideas involved with post-industrial designs.

The use and appreciation of ruins is not a new concept and have been area of interest for people for centuries. We are intrigued by the historical background of ruins and what they represent to us. They are the visual consequence of time. Something that people, who are conscience of their own cycle (mortality) find fascinating because of the reminder of impermanence. Although ruins are product of a cycle that finished they contradict this idea by leaving remnants of a bygone era out of place in time. This duality of permanence and impermanence creates a natural attraction and appreciation of ruins for people.

Braaes connection that (industrial) ruins and monuments both create interest from their size, materials, and function. That ruins can become unintentional monuments because these qualities. Scale has a great effect in people. Great scale can imply great significance. The feeling of grandeur of a soaring obelisk monument can also be found in the massive smoke stacks of industrial ruins. That unique materials create interest. Columns of stunning marble and the complex system of industrial piping both grab the viewers eyes. That the powerful message of the monument and the useful function the industrial system both spark thoughtfulness.

LITERATURE REVIEW:

Conclusions continued

The author examines the value of ruins and how they can be broken in absolute/ primary (historic and age) values and sub (art and use) values. I agree with the effect historical significance has on the value of a ruin but disagree that age is necessary to give value to a ruin. That history and the sub values of art and use can supplement the effect of age. This is evident in industrial ruins. These sites are “relatively” recent and still hold value and interest because of the sites history, the “art” or visual component of complex industrial equipment, and the previous functions of the site.

These topics and information, ideas, and philosophy with them can be applied directly to my thesis idea of creating new narratives to cultural heritage ruins by using post-industrial landscapes and their ruins as an example.

Understanding that the appreciation and interest of ruins is a timeless concept is useful because it confirms that people want to spend time and have access to ruins. That there is a desire to explore the remnants of a bygone era and the history and culture it was a part of. This gives a purpose to my design and confirmation the ruins of Pueblo Bonito can be better utilized and appreciated.

By examining why people appreciate and find interest in ruins we can discover the qualities and components of how they can become unintentional monuments. Understanding these pieces of ruins and the effects they have on people I can begin to recognize these vital components in my site’s ruins. As an example, Braae explains that we as people are culturally conditioned for historical awareness, because of this I will need to identify the historical elements of my site and how I can most effectively represent them in my design.

The author’s connection of monuments to (industrial) ruins through size, materials, and function and how the author rated values of ruins will be used to examine and evaluate the current conditions, components, aesthetics of Pueblo Bonito. This will help create an effective site inventory and analysis with a focus on ruins, both post-industrial and cultural heritage, and their landscapes. By creating a tailored inventory/analysis with these conditions I will be able to find better data/information to base my design on.

Landscape Narratives

Title: Landscape Narratives
Subtitle: Design Practices for Telling Stories
Author: Matthew Potteiger and Jamie Purinton

Literature Form: Book
Page Count: 340

Abstract

A narrative is both the story and the means of telling a story. They are often used in design as a foundation to build your design around. It is the core concept of your idea. The message you are trying to communicate with the user and the way your do so.

This book Landscape Narratives provides the framework on how to create effective narratives focused on landscapes. It explains the processes, elements, and forms in detail. It also provides the basic understanding of what narratives are, how they are used and how to begin thinking in design with narratives.

Topics in Literature

Landscape Narratives is written in three sections: Part One of Theory, Part Two: Practices, and Part Three: Stories.

Topics of Focus

Narratives in design was a topic/tool that I only recognized but did not understand the full use or meaning behind. I also have had no experience in my academic career in writing narratives for any of my designs. The closest practice I used was creating core design concepts/ideas before designing.

My thesis idea is creating new narratives for cultural heritage ruins, so I needed to fully understand what a narrative is, what it can be used for, and how to create an effective narrative. I focused on the entire Part One: Theory section of **Beginning** and **The Nature of the Landscape Narrative** to understand the core concepts and essentials of narratives.



LITERATURE REVIEW:

Views

The narrative is the very fundamental way people shape and make sense of an experience or landscape. It is more than just a story, it is also the means of which we tell that story. It is both the product and a process. It is a comprehensive means of communicating because of its flexibility and its inclusiveness. Narratives can be anything from complex structures of organization to a simple sentence. The representation of the notion of progress to “Richard left to the grocery store an hour ago.” Both can be a form of narratives.

Narrative originally thought of only being an arts and literature tool has evolved into uses in a broad range of disciplines, especially with design. Architecture and landscape architecture have both used narratives as a tool for creating experiences for the intended user. Designers create narratives for buildings and landscapes like a writer creates a plot for a novel.

Narratives designed around landscapes still have the similar goals and intentions common other narratives (such as art and literature) but also have different challenges and opportunities. Landscape narratives are complex. The narratives intersect and interconnect with the site, accumulate as layers of history, organized sequences, include the material palette, and processes of the landscape. Past and present can both be present in the landscape narrative and layers of stories can be expressed. These storylines and experiences can also be interconnected by how the users view the landscape and the order they do so.

Landscape narratives connect the tangible and intangible. You have the physical and visual features of the landscapes and the untouchable un-seeable but still very real components of narratives such as time, history). Landscape narratives are more showing than telling. There is no narrator. The viewer/user must become their own narrator and creating a landscape narrative that implies the intended narration/experience is a complex challenge.

Landscape Narratives

Views continued

The process of creating a narrative isn't a fixed formula and each one will take a different path. You must be flexible with your thinking and design, but the authors explain some guidelines that lead us to an effective final product. Landscape Narratives explains that when building a landscape narrative, it is built with two main components and with a variety of flexible design strategies depending on your goal/intention. The two main components are temporal and spatial qualities. Temporal qualities are like time, history and plot where spatial qualities are more of scale, sequence (pathways) and the nature of a landscape. The physical scale of the landscape can "set the scene" of the narrative. It can determine the scope, whether it's a large expanse or personal experience. Sequences can come in form of pathways. What the user experiences and views when following a designed path. Vegetation, rocks, and the very landscape soil can become an emblem of nature. The temporal qualities like plot and time come in the form of hierarchy, shape, and the rhythm given to the landscapes.

Different strategies are used for different narrative functions and goals. The authors list out a variety of strategies and examples of where they are often used. They also explain that these strategies can be a hybrid of them. The strategies that would best fit for my thesis idea and site would be: memory narratives and interpretive narratives (a common narrative used in national parks).

Memory is an powerful tool. The past can have immense impact on how we feel about a space or landscape, and each space and landscape have history of individual and collective experiences. These experiences can be harnessed by building a narrative around them, and my thesis site (Pueblo Bonito) has over a thousand years of experience to build from. Because memory is an inclusive concept it makes the narrative flexible and able to include Pueblo Bonito's rich history and cultural significance. Peter Latz built his post-industrial design Landschaftspark Duisburg Nord around a memory narrative. His in-depth and well thought out narrative gave his design an impactful meaning. Duisburg Nord is an enormous site with such variety of uses and form. Each section of the industrial park had a different function for the former coal and steel plant. His design created a different purpose and feeling for each area but because each design was encompassed by the same narrative the overall park still feels holistic.

LITERATURE REVIEW:

Views continued

Interpretive narratives are more of an implicit narrative and often used for more conventional places. They are used to express a qualities, experience or history of the nature or site to the user. Interpretive narratives often contain preservation, restoration and salvage components to them. These are qualities I need to address in my site. Preservation of the ruins is the biggest propriety and principle of my design. If my design solution harms or degrades the landscape my thesis has failed.

Conclusion

Overall, Landscape Narratives is written straight forward and easy to understand. It explains the overall purpose and uses of narratives but also effectively explains how to build your own. The authors build your foundation of narratives then begins explaining how it can be focused for the landscape. The similarities, differences, challenges and opportunities are all clearly defined. The authors then explain the process and components for creating your own landscape narrative.

Narrative strategies are listed with their effective uses and goals and examples are given which helped me understand which would be the most effective to apply to my thesis. For my thesis project I will be creating a memory and interpretive hybrid narrative to Pueblo Bonito. The sites age and unique characteristics can be expressed through the lenses of memory and the ruins and landscape have over a thousand years of history to express through an interpretive narrative.

After reading this book, I clearly understand exactly what a narrative is and how its differs from just overall concept ideas. I also now understand how designer is not just learning to tell stories in the landscape but developing critical awareness of process and qualities of narratives.

What Roles for Ruins?

Title: What Roles for Ruins?

Subtitle: Meaning and Narrative of Industrial Ruins in Contemporary Parks.

Author: Elisabeth Clemence Chan

Literature Form: Journal Article

Page Count: 12

Abstract

What Roles for Ruins is a journal that argues the idea that post-industrial designs often “depolarize historical narratives” with the emotional response industrial ruins solicits. The authors questions if post-industrial design can still be historically accurate. To do this Chan discusses traditional ruins and contemporary (often industrial) ruins and the emotional response from them and their historic meanings.

Topics in Literature

What Roles for Ruins include the topics of **ruins** (traditional and contemporary), **post-industrial landscape design**, the **historical significance** of industrial ruins, and the **emotional responses** and attraction people have towards to them.

Views

The author views that current design trends of post-industrial landscapes have three critical problems. One: That industrial ruins are used for an attraction and a backdrop for recreation and this “oversimplifies the complex histories of these places”. Chan explains that industrial ruins left behind are grand and impressive (which I agree with) but their original purpose and function is ambiguous. She argues that post-industrial designs often exploit this attraction and covers the ruins former use. Landschaftspark Duisburg Nord is used as an example of this because Peter Latz (Nord’s designer) gave the ruins of the former coal and steel plant new functions (mostly recreational). Support walls were readapted for climbing. Former gas tanks on site became used for scuba diving. Chan discusses that “what edifices’ functions (of industrial ruins) were in the past is veiled by their contemporary use or state”. Chan views that the designs and functions of contemporary industrial ruin parks distract the user from the sites former significance.

LITERATURE REVIEW:

Views continued

I disagree with this view because the former use and function are obsolete. It is the reason why they are ruins. I believe the adaptive use of these ruins with new functions is a positive because it blends functional design and history. That when a user of the design climbs on playground equipment built from the industrial ruins they are immersed in the history of the site while still enjoying the modern function. I can see her perspective and view that the ruins that are converted can cover some the history but I believe it's about finding a balance of the two in the design that makes and successful design/narrative.

Two: "The phenomenological experience of visiting a contemporary industrial ruin park is inspired by the by the character of the place (emotional experience) rather than the insights into history (intellectual experience) it offers". Chan believes that emotional responses we have towards ruins clouds our views of the themes, issues, and complications of the ruins, there former roles these ruins played and the politics of industrialization.

I disagree with this view. I do agree that we should not erase the past roles of these sites and ruins but the degree of expressing the history and views is dependent on the goal or intended function of the site. The author uses Gasworks park by Richard Haag as an example. Chans explains that "someone visiting (Gasworks) today for a concert or flying a kite is not made aware of the toxins in the soil underfoot by the design".

I disagree with this because a post-industrial landscape with the goal being a simple open greenspace for the public (like Gasworks) does should not require the public to understand the compilations and specification of the design to enjoy the space. The users of our designs in landscape architecture are mostly laymen to our field and we should not expect this unnecessary insight. Let them just enjoy (and operate) the space.

What Roles for Ruins?

Views continued

Three: “Ruins are perceived simply as ruins”. The author discusses that the ruins of contemporary post-industrial designs have little impact on the emotional experience of the user. That this emotional attraction of the ruins has no connection to the ruins “historical authenticity”. Chan explains that the closest any of these designs get to this unaltered historic perspective of ruins is placing a few educational signs on site.

I disagree a with this view but agree that the historical authenticity of ruins should be kept as accurate as possible. I believe that the attraction to ruins can spark an interest in the historical qualities of ruins. That when immersed in ruins the user’s emotional response to the space will create an urge to learn more about the space and the ruins former significance. Steelstacks and Cultural Park is a example of a design that blends the attraction and interest of ruins with the sites former function and use. The pathways of the design follow the former plants manufacturing lines. That users walk the path steel would follow when being created. I think this an successful example of connection emotion and history (of ruins).

Conclusion

I appreciate the authors critical views on post-industrial designs. Chan raises valid questions and concerns that should be discussed about this topic when designing with ruins. Even though I do not agree with all the problems the author discusses, it has made me view and think about these designs and narratives in a different perspective. Post-industrial landscapes is a popular “hot” topic in landscape architecture and I rarely read viewpoints questioning the designs. That when we view these designs or ideas critically it raises discussions that can lead to new or better ideas. Or even just confirm what we already know.

I think Chans views and perspectives are more theory than function. It is more of an armchair philosophy and thought experiment than actual practicality of designing landscapes with ruins. This reading was still valuable to me because it stirred thoughts and views I wouldn’t have thought of designing with post-industrial sites and ruins. I will keep these ideas in mind when designing and building narratives with the (traditional) ruins of my thesis site.

RESEARCH SUMMARY:

Summary

These literature sources provided valuable insight and views on the topics of narratives, the post-industrial landscape process, ruins (industrial and traditional), and the emotional response and cultural and historical significance of them. I will be using the ideas and information of all three when creating my design solution for my thesis.

Beauty Redeemed

The entire book covers the entire process of recycling post-industrial landscapes. The author begins with the rise and fall of the industrial movement that led to these ruins. She explains the philosophy of why people are attracted to ruins and how it is an age-old trend and isolated to the recent conversions of postindustrial landscapes.

This topic was especially useful for my thesis because of my unifying idea of using post-industrial landscapes and their ruins as an example for creating new narratives for cultural heritage ruins (such as Pueblo Bonito). By discussing why we as people find ruins attractive and interesting I can begin to dissect the ruins of my site of the qualities that are most important and how they can be best utilized in my thesis design.

Landscape Narratives

Landscape Narratives built a foundation of understanding what narratives are, what they can be used for, and the process of building one. The concept of narratives originally seemed vague and the word is often used as design buzzword, but the book effectively explains what the true purpose and function is.

Narratives are tool for communication experiences and how we experience them. It is a form of storytelling, but it is not just the story but the means of telling the story. Both product and the process.

Landscape Narratives continued

The authors then build from this by explaining how the differences and similarities of landscape focused narratives and the challenges and opportunities they create. Landscape narratives are more showing than telling. There is no narrator and the viewer must become the narrator themselves. This is one of the biggest challenges with creating landscape narratives. You want to communicate an experience or story to the user in a way they can interpret correctly without a direct guide or voice.

The authors then begin explaining the process of creating an effective landscape narrative. It's more of a guide than an exact process. Universal components are explained and their purposes. The authors given examples of narrative strategies and their uses. I found this guide and strategies very useful to begin forming my narrative for my thesis project.

For my thesis, my landscape narrative will be a hybrid of a memory narrative and interpretive narrative. These will be the most effective narrative strategies for Pueblo Bonito because of its strong cultural heritage and centuries of history.

What Roles of Ruins:

What Roles of Ruins is an article from a landscape architecture journal that argues that post-industrial landscape designs often “depolarize historical narratives” with the emotional response industrial ruins elicit to users. The author has three major problems with the designs of these contemporary ruins.

One: That industrial ruins are used for an attraction and a backdrop for recreation and this “oversimplifies the complex histories of these places”

Two: “The phenomenological experience of visiting a contemporary industrial ruin park is inspired by the by the character of the place (emotional experience) rather than the insights into history (intellectual experience) it offers”.

RESEARCH SUMMARY:

What Roles of Ruins continued

Three: "Ruins are perceived simply as ruins". That there is a disconnection between the emotional response to ruins and the "historical authenticity" of the ruins.

I disagree with the authors perspectives on these issues, but I appreciate the critical thinking Chan has inspired in my viewing of post-industrial landscapes. Her views are more theory than practicality of creating functional post-industrial landscapes.

Conclusion

These three sources have been valuable sources of information and understanding of the topics they were written about. Each literature source provided a different specialty and view that will be used in my thesis design.

Beauty redeemed provided an overall understanding of the complex process of converting post-industrial landscapes. The sections on how ruins are monuments and the value of ruins was especially valuable for my thesis. Landscape Narratives like the name suggests provided an effective explanation on the topic of narratives and the process of creating landscape narratives.

This book will be continually review in my design because y thesis idea is built around creating a modern narrative for cultural landscapes. The last article is a thought provoking piece which the author argues that their major problems with cotemporary post-industrial landscape and their ruins. I have a difference of opinion with the authors views but found the change of perspective extremely helpful for critical thinking on viewing post-industrial landscape designs.

What Roles of Ruins continued

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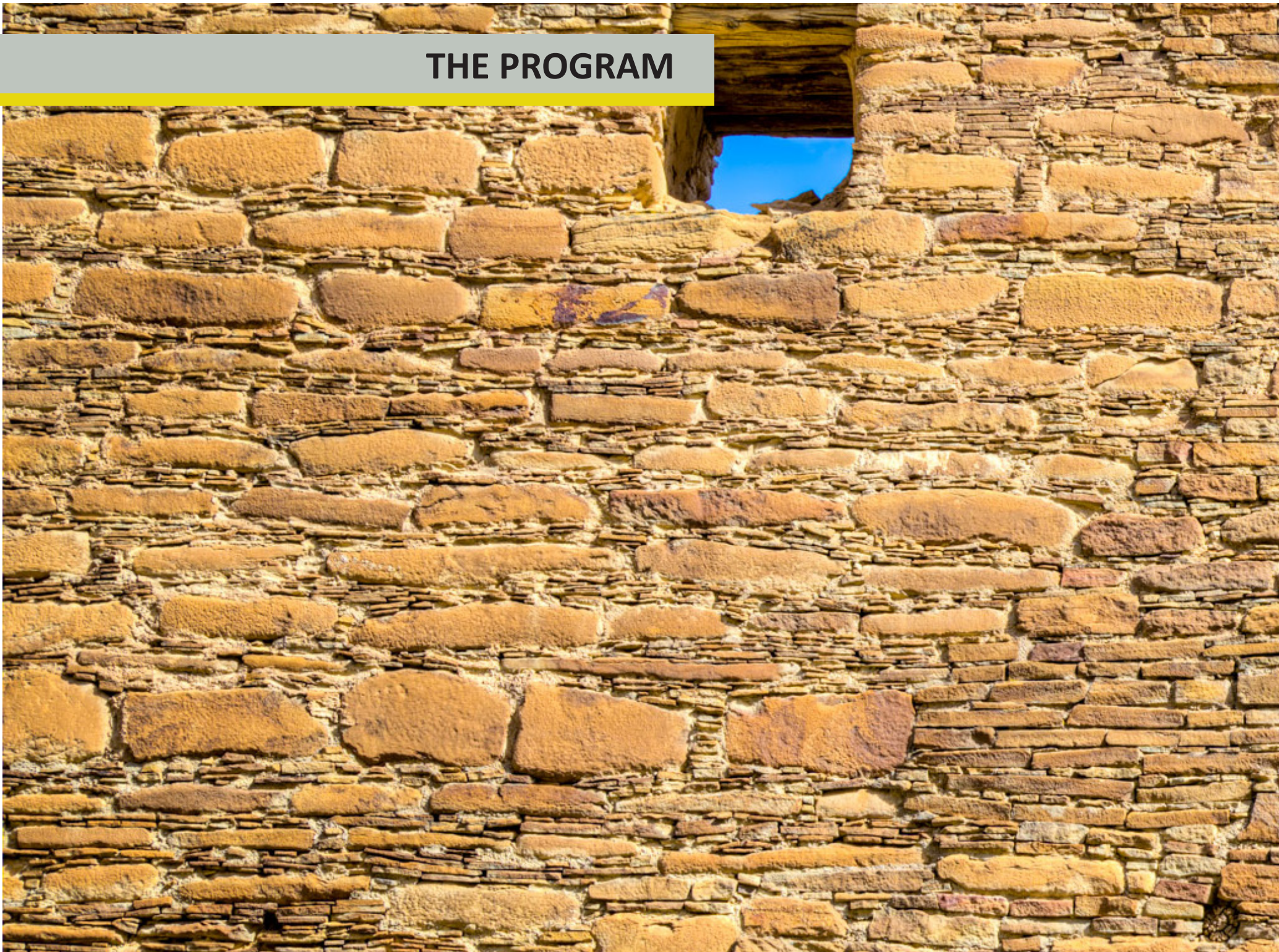
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THE PROGRAM





PROJECT JUSTIFICATION:

Site selection justification (historical, cultural, social)

My thesis project site is Pueblo Bonito located in the Chaco Culture National Historic Park in New Mexico. The site is the largest and best-preserved ruins of the ancient Pueblo people. It is both a United States National monument and a registered United Nations world heritage site because of its significance.

Pueblo Bonito is over a thousand years old and was occupied for over 400 years as a seasonal settlement of the Pueblo civilization. It was a great house that was used as a mix use complex. It housed residents, political and religious uses and was the region's central hub of trade. After decades of droughts the Pueblo people migrated out of the valley and abandoned the landscape.

The ruins of Pueblo Bonito have been a source of cultural and historical information of the Pueblo People for over a hundred years. The site has been archeologically studied and excavated since the 1890s. This landscape and ruins need to be protected for further historical and cultural study and appreciation. The site's minimal development has led to a relatively untouched landscape but also leads to threats of erosion by nature. This erosion also erases the progress of researchers. My thesis design solution will include preservation tools to protect the site from visitors and natural erosion.

Socially it is underutilized and underused. It is one of eighteen world heritage sites in the United States but has one of the lowest visitation rates. Pueblo Bonito has been compared to North America's Machu Picchu. My thesis design will create an updated narrative to increase the amount of tourism of the ruins, so Pueblo Bonito can receive its deserved appreciation.





Personal/Professional justification

While studying landscape architecture I have gained a personal interest in vernacular landscapes and post-industrial and cultural heritage landscapes being some of my favorites. I find the way we shape landscapes with the focus on pure function extremely interesting. The result is often an elegant design with all unnecessary fat trimmed off. Post-industrial landscapes are a great example of this.

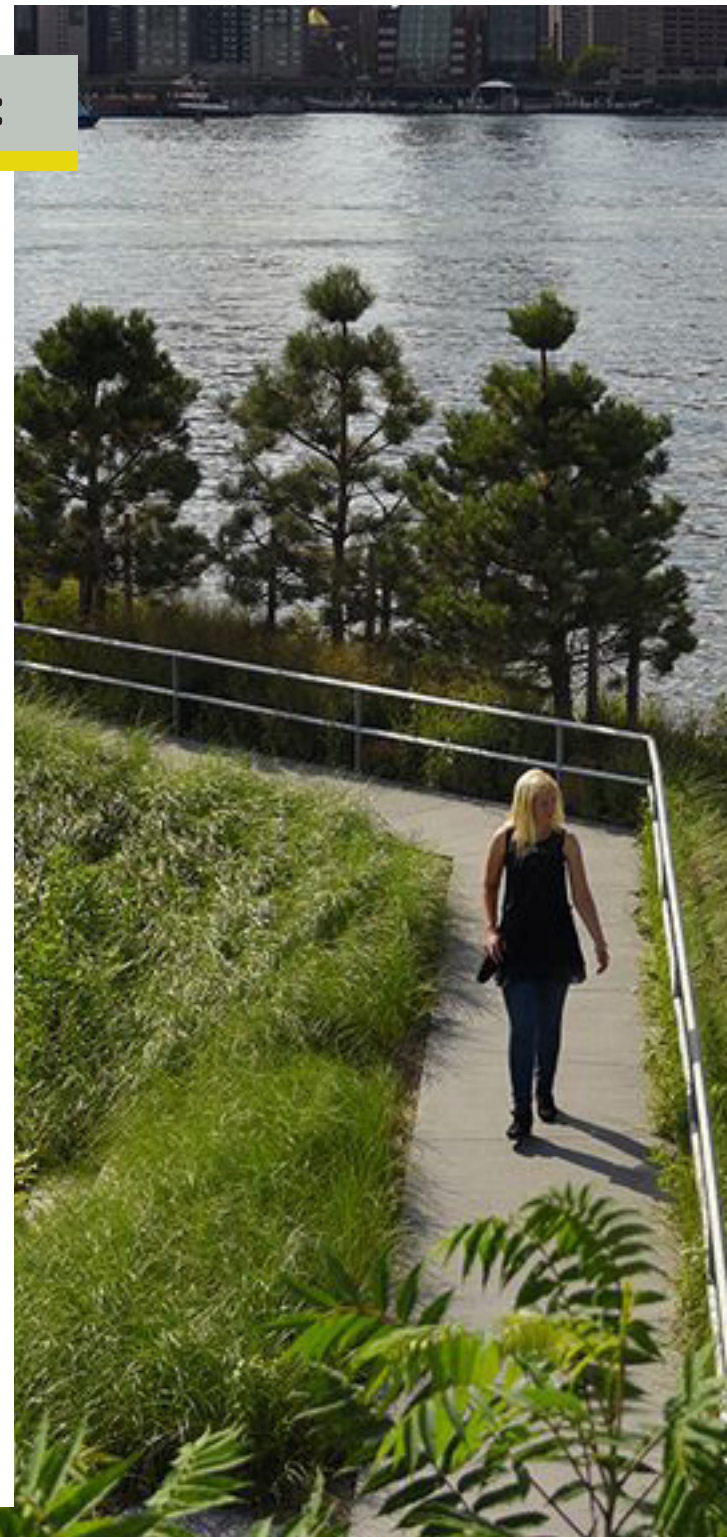
I think researching and learning about these topics is important in my academic development because allows me to understand a topic I have a passion for and gives me the time and the resources needed to gain a foundation of knowledge that I can hopefully base my future career direction on.

Currently, cultural heritage landscapes in the United States are often underutilized. Landscape architects showed by converting post-industrial landscapes (previously thought unusable and untouchable) that usable spaces can be found in unconventional places and unusable landscapes be revitalized with new function. These cultural heritage landscape and ruins need this same revitalization and our professional can pave the way of this new design opportunity.

HISTORICAL, SOCIAL, CULTURAL CONTEXT:

Social context

How does it relate to social trends? Post-industrial landscapes have been one of the top “hot” trends in the landscape architecture professional since the creation of Gasworks park in the 1975. Design and users both find appreciation and attraction to these industrial ruins. But this emotional response is not a new trend. For centuries ruins have been incorporate into art and literature. Folklore tales use decaying castles as settings for their stores. Barquoe paintings used ruins of churches to create a dramatic backdrop. There has always been a fascination with ruins. The current trend is with contemporary ruins of industrial sites but I think traditional ruins, such as Pueblo Bonito, need a revival.





Cultural context

Pueblo Bonito was registered as a world heritage site in 1987. To be inducted to the world heritage registry the site must meet at least one of ten criteria listed by UNESCO. Pueblo Bonito is ranked as for criteria iii (3) which is “to bear a unique or at least exceptional testimony to a cultural tradition or to a civilization which is living or which has disappeared.”

According to the United Nations they explained that “the Chaco Canyon sites graphically illustrate the architectural and engineering achievements of the Chacoan people, who overcame the harshness of the environment of the southwestern United States to found a culture that dominated the area for more than four centuries.”

This four hundred years of culture should be and will be interpretive in my thesis design. Users of the site will be immersed in ruins over a thousand years old and given the means and information to appreciate and learn from this culturally significant landscape.



HISTORICAL, SOCIAL, CULTURAL CONTEXT:

Historic context

Pueblo Bonito was first occupied in the year ~830s AD and construction began of the great house. The complex was built in sections over the course of four hundred years. During this time the Pueblo population steadily grew in size and in cultural significance. The central location of the site made it ideal for trade which allowed Pueblo Bonito to become the dominating economic culture in the region. The Pueblos began to connect their great houses to each other with roads and their trade network expanded to south-Central America.

This growth also led to the eventual abandonment of Pueblo Bonito. The sparse wildlife and vegetation is believed to be the biggest component behind the Pueblo people leaving the Chaco Canyon. The Pueblo population was steadily growing, and the Chaco canyon is estimated to only be able to support around two thousand people when there were plentiful wet seasons. This is another supporting factor that Pueblo Bonito relied on trade heavily to survive and that it was a temporary settlement. There are records that in about 1100 AD, after decades of a harsh drought in the valley the ancient Pueblo migrated away and abandoned Pueblo Bonito. Most went north to settle which became Mesa Verde.

Pueblo Bonito was first discovered in 1849 during a military expedition led by Lieutenant Simpson. His expedition artist was the first person to ever record the ruins. Archeological, anthropological and historical surveying and digs began on the site in 1896 and has continued since.





Historic context continued

The Chaco Culture National Historic Park was formed in 1916 and the landscape in the park has been left nearly untouched since because of national protection. Pueblo Bonito was registered as a UNESCO world heritage site in 1987 and a United States national historic place in 1966.

The creating of the Chaco Culture Historic National Park in 1907 has greatly helped the preservation and protection of the ruins and landscape. The landscapes and features are relatively untouched but there is still significant threats and problems in the national park and to the ruins of Pueblo Bonito specifically that need to be addressed.

The current management plan of the Chaco Culture Historic National Park is to continue with its priority on preservation and archeology of the park's ruins. There is no current plans for expanding/building on these ruins or promoting them more for greater tourism (like the focus for the Mesa Verde National Park does with its ruins). I believe that this focus on archeology and research only is limiting the full potential of the site.

HISTORICAL, SOCIAL, CULTURAL CONTEXT:

Historic context continued

Pueblo Bonito is a world recognized heritage site and yet only 40,000 visit the national park a year. This is a massive under appreciation of the cultural and historical significance of the site.

The ruins of Mesa Verde receive over 600,000 visitors last year while Pueblo Bonito (which predates and whose people eventually founded Mesa Verde) received around 40,000 visitors. Pueblo Bonito is considered by archeologists to have a greater cultural and historical importance than Mesa Verde but receives less than a tenth of the visitors.

My thesis idea will address this outlook by creating a new narrative for Pueblo Bonito that will revitalize the site. By using successful post-industrial landscapes as a guide to how to design with ruins and how ruins can be used to bring in more visitors.

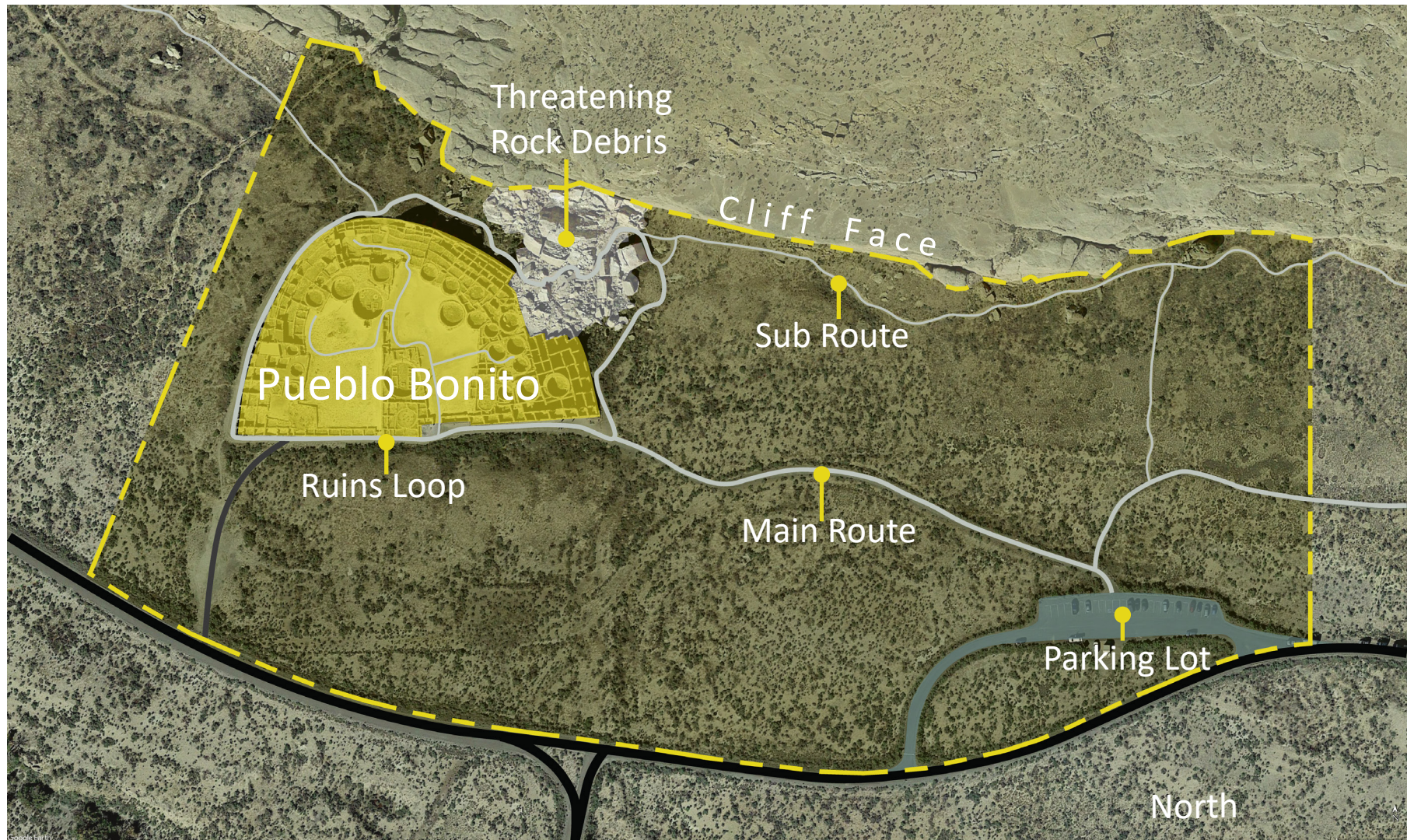




SITE INVENTORY/ANALYSIS:

Site Area:

Site Boundary: **27.1** acres Pueblo Bonito Ruins: **2.6** acres





Climate:

The climate in the area is an arid region of high xeric scrubland and desert steppe.

The region is a **zone 7A**.

The region's temperatures varies between –38 to 102 degrees Fahrenheit and may swing 60 degrees Fahrenheit in a single day.

The park has less than hundred and fifty frost-free days per year, and the local climate swings wildly from years of plentiful rainfall to prolonged drought.

The nearby mountains create a rainshadow effect that makes the area have sparse rainfall and the park receives an average of **9 inches of rainfall a year**.

Circulation:

Pedestrian Circulation:

Main Pathway length: 2,949 feet total (.55 miles)

Sub Pathway length: 1,474 feet total (.27 miles)

Vehicular Circulation:

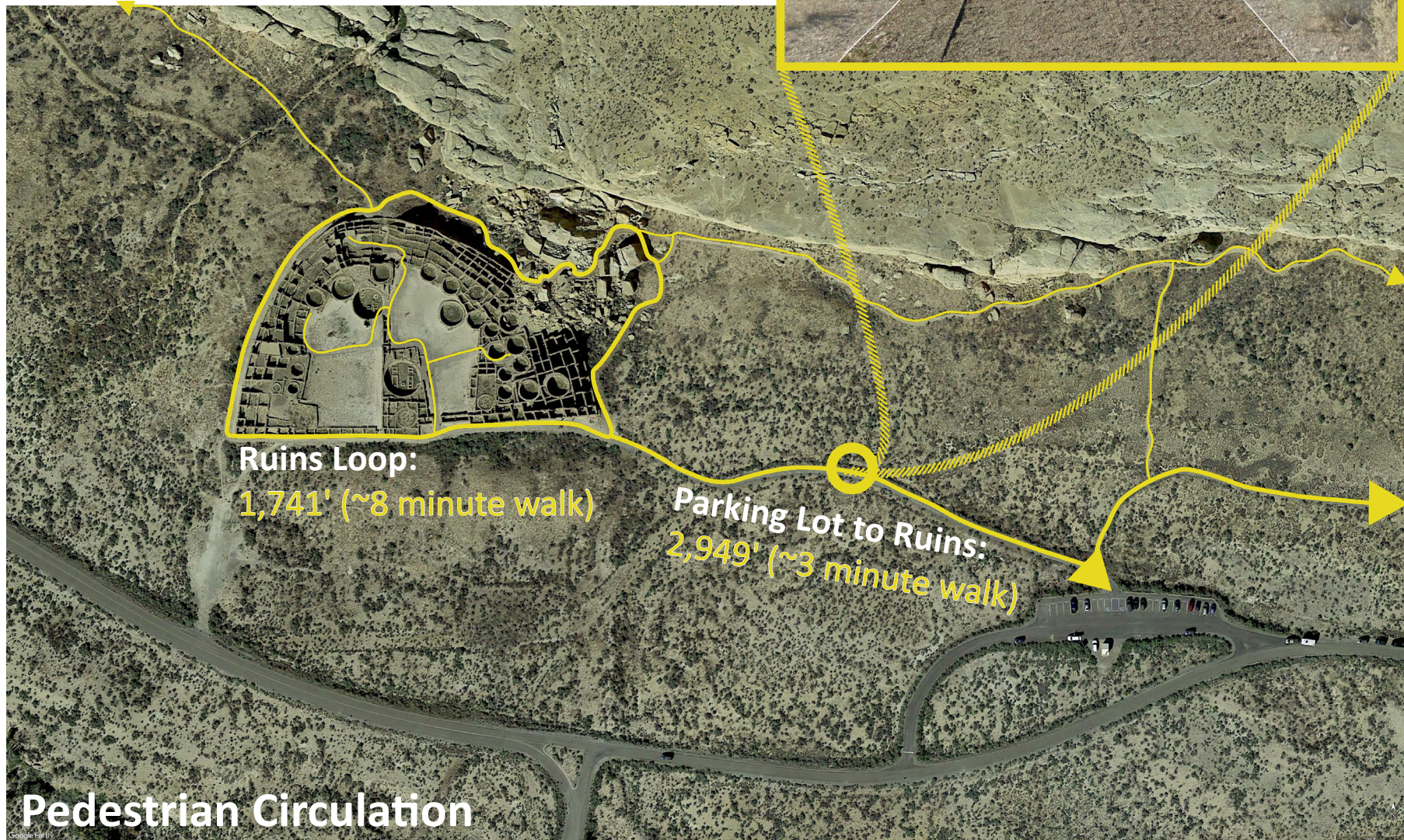
Road Length on Site Edge: 1,856 feet (.35 miles)

Site to Park Visitor center: 3.5 miles

Walkway Quality:

Gravel/dirt pathways

Limited maintenance

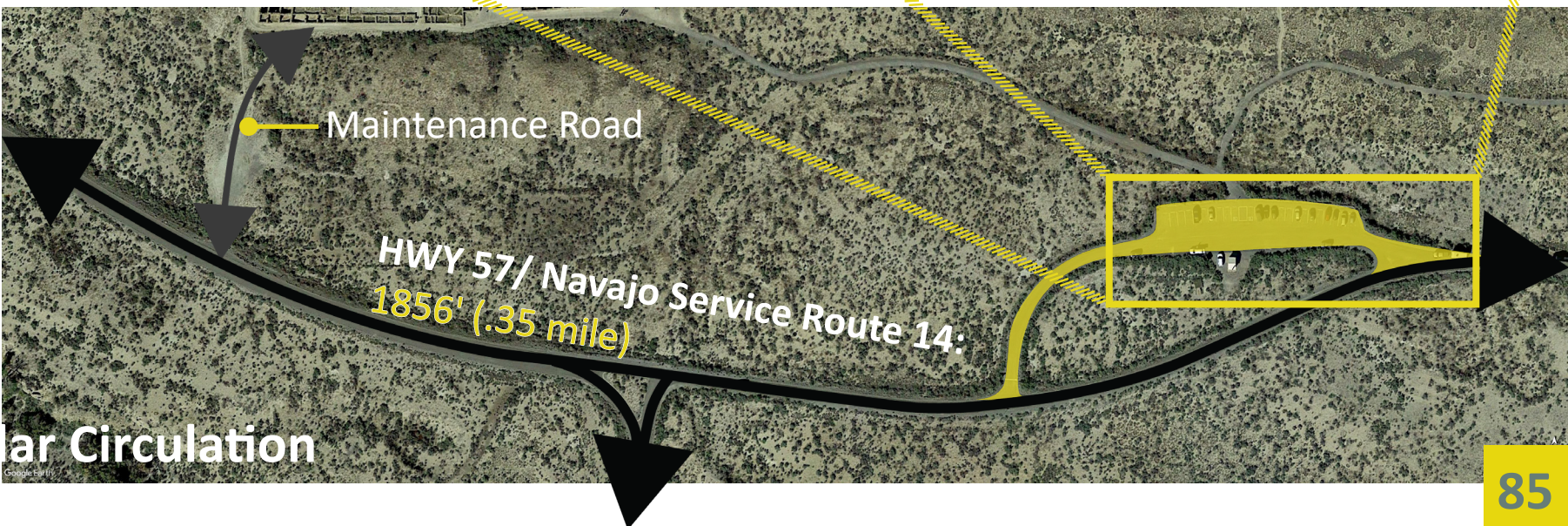
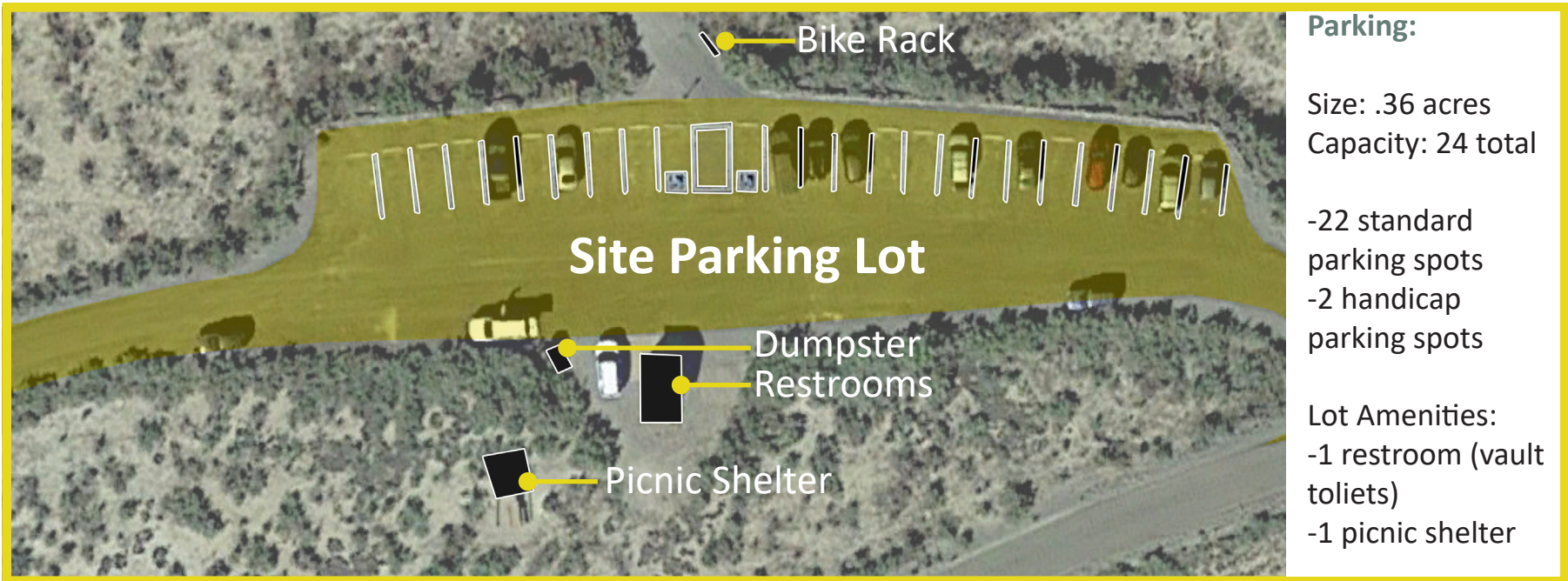


Ruins Loop:

1,741' (~8 minute walk)

Parking Lot to Ruins:
2,949' (~3 minute walk)

Pedestrian Circulation



Site Vegetation Cover:

Area of vegetation cover: **23.29** acres
85% of site covered in vegetation

The majority of vegetation cover is a low **scrub** and **cacti** mix. The entire vegetation cover is a scrubland biome. There are no shade trees in the site boundaries.

Soil:

All of the soils sampled in Chaco Canyon had pH values that fall within the ideal pH range of **5.5–7.5**. Plants find this pH range ideal for reliable growth.

The site's soil is classified as a desert **sandy loam** with a high salinity (salt content).





Vegetation Biomes:

Pinyon-Juniper Woodlands: in region



Cottonwood - Willow Riparians: in region



Scrubland: in site boundary

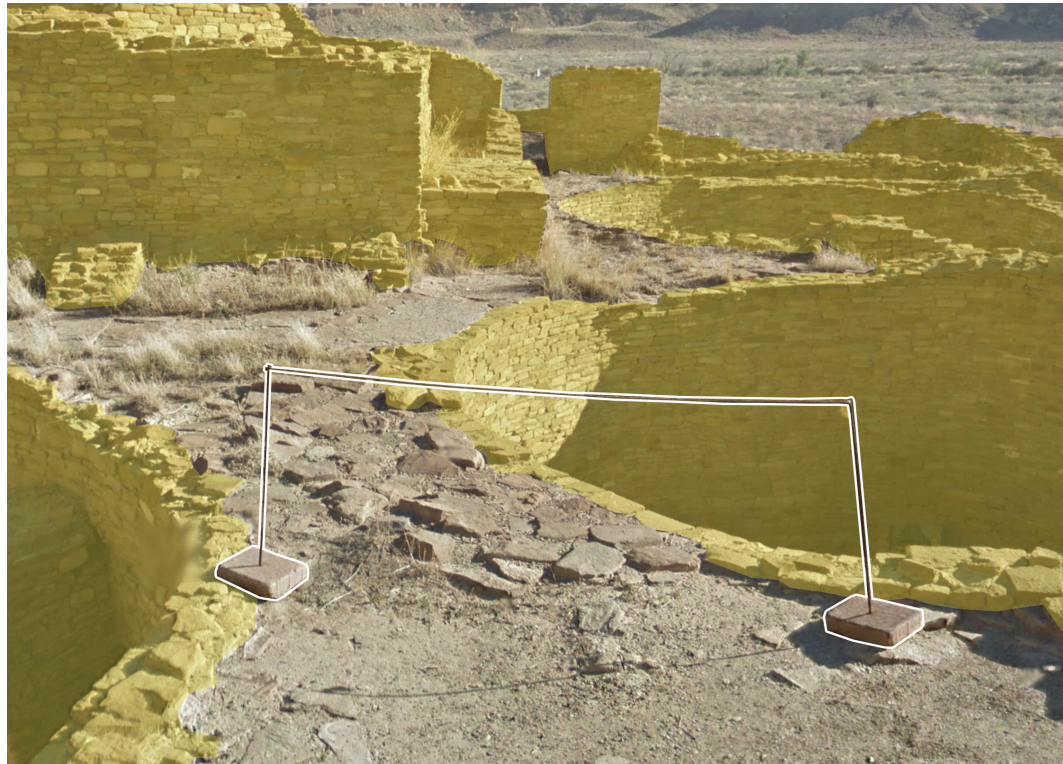


Wildflowers: in region

Site Preservation Tools:

The preservation tools and devices in Pueblo Bonito are **seldom** and **basic**. The main preservation tool are the braces that support the northern wall near the cliff face. The braces are made from rough wood timber, concrete footings/foundations and metal wall connectors. The footings express that concrete can be placed in the site and footings/foundations are viable in my design (if placed in non-invasive or least invasive locations).





Barriers:

The barriers/fences used in Pueblo Bonito are **rudimentary** and often crafted by hand. Sign posts and bases are scraps of wood and ropes and placed rocks are used to define the spaces that are off limits to the public.

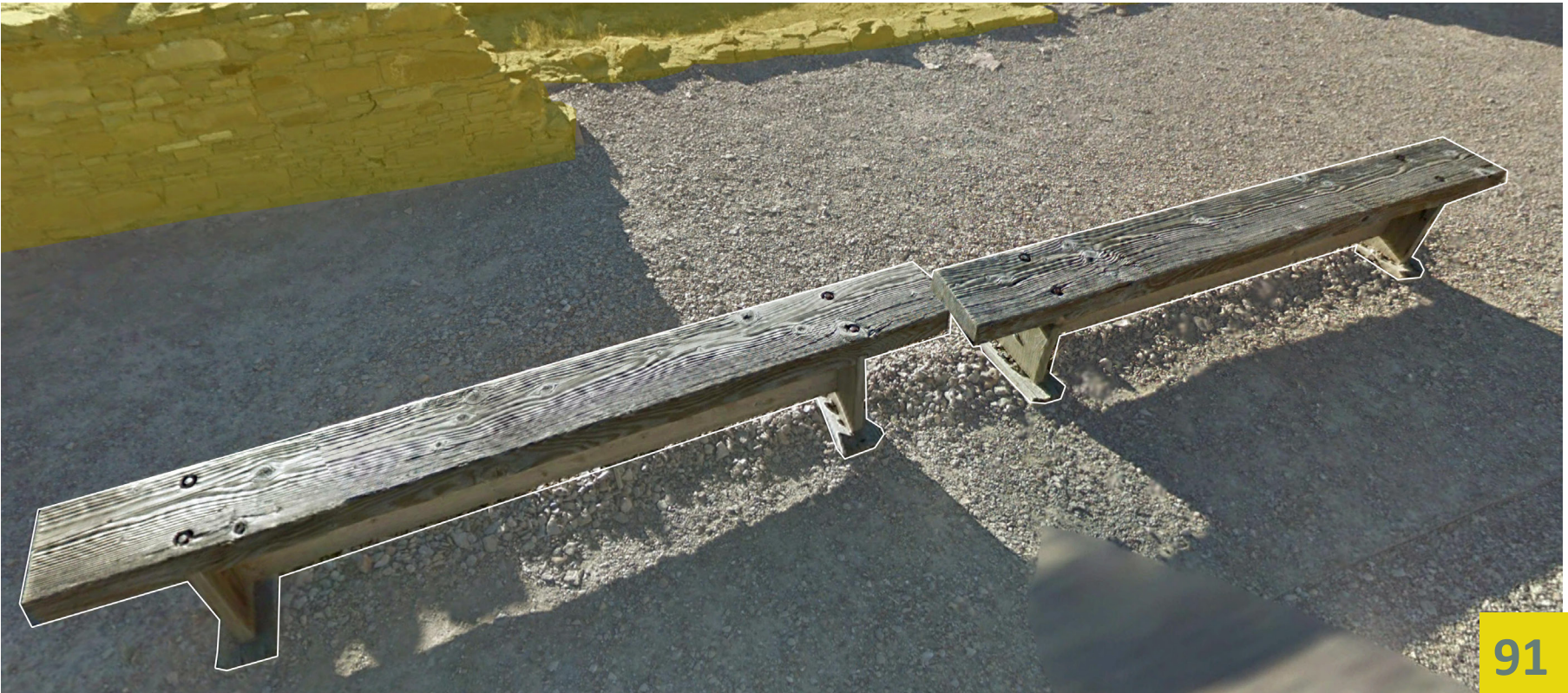
These informal barriers create an adventurous atmosphere of exploring the ruins but are also a **preservation and safety liability** that will need to be addressed.

Site Amenities:

The majority of Pueblo Bonito's site amenities, like **signs**, **benches**, **restrooms**, and **shelters**, are located in the parking lot area. The rest are scattered along the trails and placed near the ruins. These site features tend to be simple in form and receive minimal maintenance. The benches are rough wood and bleached from the sun. The restrooms are vault toilets and the signs tend to be wood framed and simple plastic covering.

The most intricate feature is a metal sign built into a piece of local stone near the entrance of Pueblo Bonito. This sign's **rustic** yet **simple** design reflects the current condition and function of the ruin. It's built to last with basic materials yet has a distinct style, and direct purpose/function.





PERFORMANCE CRITERIA:

Psychological Impact

Performance Measure: I will need to measure the effectiveness of my design narratives and how they are psychologically effective they are communicating its intended experience. I plan on using a memory and interruptive narrative strategies for my design of Pueblo Bonito

It is a challenge to psychologically measure and create measurable “units”, but I will see how the sites aesthetics (material, scale, planting design, and surrounding landscape) psychologically effects the user. I will also try and gauge how sensory experiences of how my design’s expression devices (pathways size/height, signs, barriers, event spaces) psychologically effects the users.

Measure Source: I will use feedback from views of design (Professors/ teachers, student peers, outside the field viewers) as the primary source.

Performance Analysis: I will create graphic renderings and perspectives to give viewers accurate representations and visual aids of my design. I will also use vertical reality to allow viewers to “explore” the space in the first person to gain accurate reactions. After the viewers reviewed my site design I will create a survey to measure their reactions and feedback.

Judgement: By using graphic renderings, VR programs, and surveys we can judge, explore the design and receive feedback from the views if the design narratives reflect their intended experience. If the views reports are similar to my intended narrative stories and goals it is successful.





Behavioral Performance

Performance Measure: For behavioral performance I will measure user data (tourism visitors, professional/academic users). Visitation rates and times (how many users a month/year and time of day of usage).

Measure Source: I will gather my data from the National Park Service records (of Chaco Cultural Historical National Park) of their visitation records and park pass sales. I will Professional/academic users (must ask permission) logs

Performance Analysis: I will create graphs and table graphics with the monthly/yearly park visitors, the sales of national park passes, and the times which users enter and leave the park. This will be used to evaluate when the peak and slow seasons occur and the preferred user operational times. I will also study the graphs and tables to compare the operation times of tourist visitors to professional/academic users).

Judgement: I will use visual aids (graphs and tables) to communicate when peak seasons and ideal operation times are to views of my design. This will explain how I designed my solution for these ideal usage times to increase site visitation.

PERFORMANCE CRITERIA:

Code Compliance

Performance Measure: My thesis site is located in a national park and which makes it public land. This means that my site will need to be ADA compliant to accommodate for all the public. This is a state and federal requirement for projects with public access. The United Nation's world heritage registry (UNESCO) has strict preservation and build guidelines.

My design will also need to satisfy their recommended preservation and historic guidelines of the ruins of Pueblo Bonito to remain on the world registry. The ruins of Pueblo Bonito are a continuous archeological and historic excavation and study site. There are recommended academic guidelines for the preservation of excavated dig sites to protect the ruins and to not lose progress to natural erosion.

Measure Source: I will use the official requirements from the ADA and the guidelines from UNESCO. I will research the preservation practices used by the Universities that study the site as well.

Performance Analysis: I will use models and detailed site plans of my design to study if the design is up to ADA guidelines, such as slope percentages. Maps of archeological studies and digs will be used to study where access to the public needs to be limited and the areas that need critical preservation. I will use case study examples of world heritage sites that have had design altering and site remained on the registry.

Judgement: The design must accommodate all members of the public to the ADA guidelines. Can a user in a wheelchair access the site and operate the designs intended use/function? Does the design satisfy the UNECO requirements to remain registered as a world heritage site? Does my final design protect the academic and profession work and studies on the site, and also protect the ruins itself from user abuse/damage?





Preformance summary

For behavioral performance I will record the user information of the park and my site (Pueblo) and create graph and tables of the data (monthly/yearly visitors and professional/academic researchers, time of day usage). By creating these visual graphics, I can view when the peak seasons and daily operational times are of users. I can also compare these usage times between the users (tourist visitors vs professional/academic researchers). I can use this information to create an effective time and usage program.

The measuring of psychological impact of my design is less statistical. I will use my peers and teachers to receive feedback on my design solution. I will create detailed renderings and virtual reality to show my design aesthetics and expression devices and see how they make the view feel and the experience they have. If this experience from the user matches my intended (memory and interpretive) narratives, then the design is a success (of psychological impact).

The code compliance of my design will be significant criteria. My site is located in a national park and therefore is public land, must accommodate all members of the public. This comes in the form of (federally required) ADA codes. The ruins of Pueblo Bonito is also a United Nations world heritage site. My design will need to meet the UNECO guidelines that are to be maintained and confined to for Pueblo Bonito to remain on the world registry. Lastly, these ruins have been professionally and academically studied and excavated for over a hundred years. My design will need to use recommended (by the profession or universities) preservation methods and tools of archeological sites to preserve the importance of Pueblo Bonito for the future.

SPACE ALLOCATION/ADJACENCY:

SPACE ALLOCATION

TOTAL SITE AREA: 27 acres

RUINS AREA: 3 acres

Majority of program elements

Entry point

Information center

Event space

Pathways

Shelters

Excavation sites

PARKING LOT AREA: .4 acres

Restrooms

Shelters

SURROUNDING LANDSCAPE AREA: 23.6 acres

Open space

Vegetation barriers

Overlooks

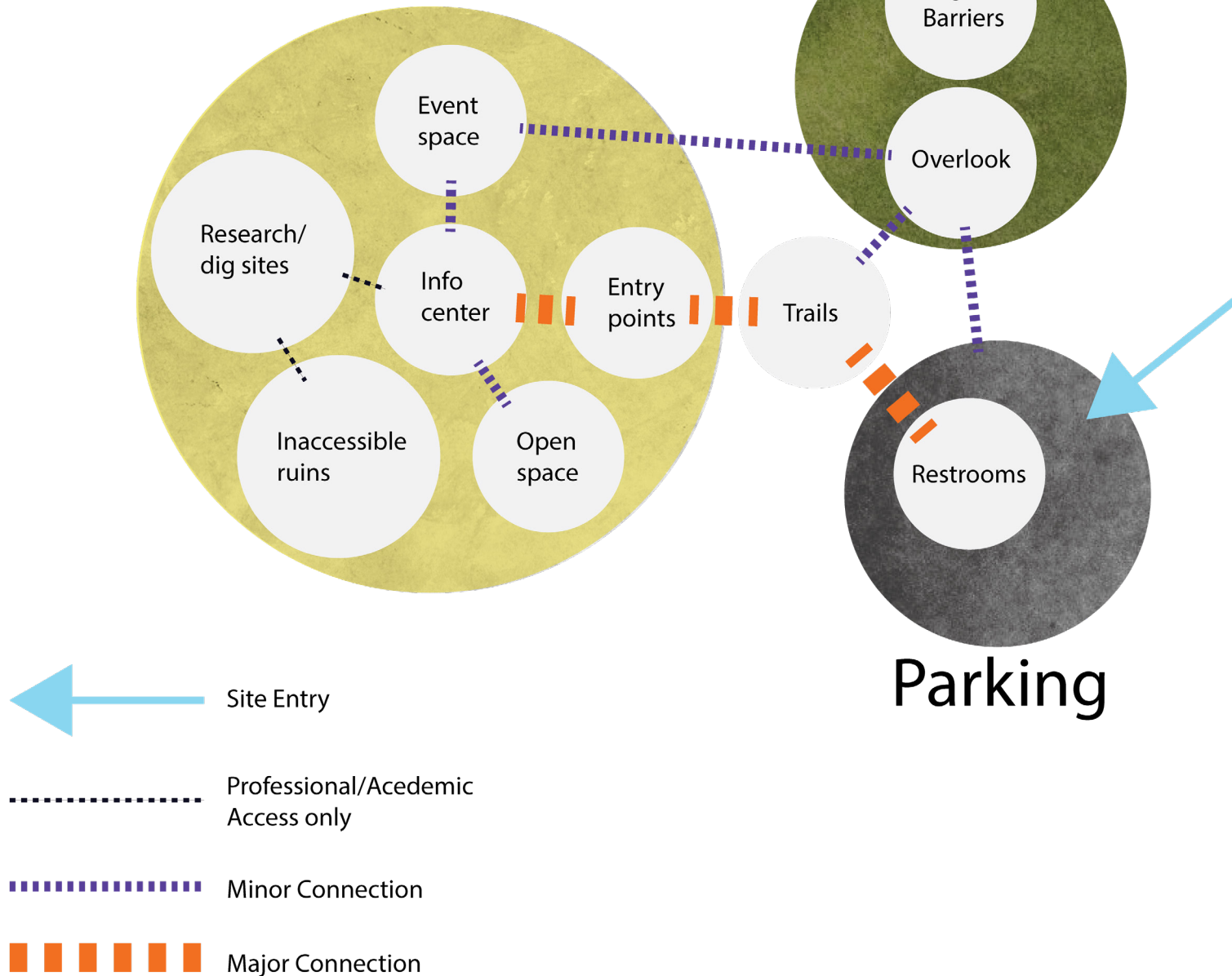




Ruins

Pueblo Bonito

Surrounding Area



APPENDIX:









IMPORTANT SOURCES:

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"NDSU's landscape architecture program. It's been swell"

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LA 271 | Introduction to Landscape Architecture | Fall 2015 | Prof. Kathleen Pepple

Tea House | Moorhead, MN

South Pleasant Church Memorial Garden | Christine, ND

LA 272 | Parks & Open Spaces | Spring 2016 | Prof. Dominic Fischer

Atomic Coffee Pocket Park | Fargo, ND

William Marshal Park | Winnipeg, MB

Riverfront Park | Fargo, ND

3rd Year:

LA 371 | Site Planning & Design | Fall 2016 | Prof. Matthew Kirkwood

North Dakota Veterans' Home Masterplan | Lisbon, ND

Graffiti Park | Eagle Butte, SD

LA 372 | Community Planning & Design | Spring 2017 | Prof. Kathleen Pepple

Bike Trail System | Webster, SD

Community Complex | Chicago, IL

4th Year:

LA 471 | Urban Design | Fall 2017 | Mr. Jason Kost

Mission Rock Development | San Francisco, CA

LA 472 | Environmental Remediation | Spring 2018 | Dr. Yang Song

Downtown Development Plan | Ortonville, MN

Spirit Lake Equestrian Trail | Fort Totten, ND

Fargo-Moorhead Diversion Park | Argusville, ND

5th Year:

LA 771 | Performance Based Design | Fall 2018 | Prof. Yang Song

Red River Parks System | Fargo, ND

